

# SERVICE MANUAL

BG-1S CHASSIS

MODEL

COMMANDER DEST. CHASSIS NO.

**KV-2197M5**

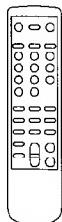
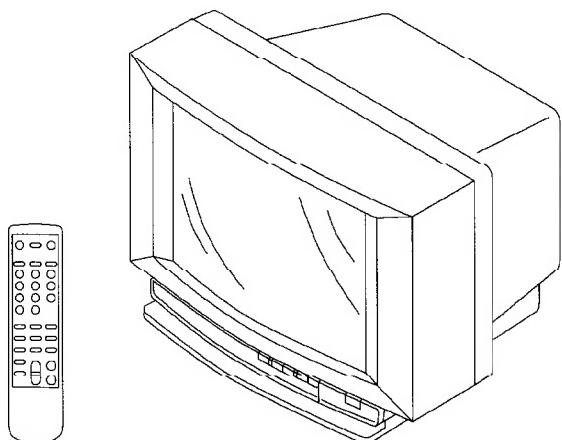
RM-870 ME SCC-J35U-A

**KV-2197M5S**

RM-870 GE SCC-J40R-A

MODEL

COMMANDER DEST. CHASSIS NO.



TRINITRON® COLOR TV  
**SONY®**

### SPECIFICATIONS

		Note
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G	
<b>Color system</b>	PAL, PAL 60, SECAM, NTSC4.43, NTSC 3.58 (AV IN)	
<b>Channel coverage</b>	VHF: E2 to E12/UHF: E21 to E69/CATV: S01 to S03, S1 to S41	
<b>Audio output (speaker)</b>	3W × 2	
<b>Inputs</b>	Antenna: 75 ohms  VIDEO INPUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance	
<b>Outputs</b>	Earphone jack: mini jack  MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
<b>Picture tube</b>	21 in.	
<b>Tube size (cm)</b>	54	Measured diagonally
<b>Screen size (cm)</b>	51	Measured diagonally
<b>Dimensions (w/h/d, mm)</b>	600 × 459 × 474	
<b>Mass (kg)</b>	24	

Design and specifications are subject to change without notice.

#### CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

#### SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY SHADING AND MARK ▲ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

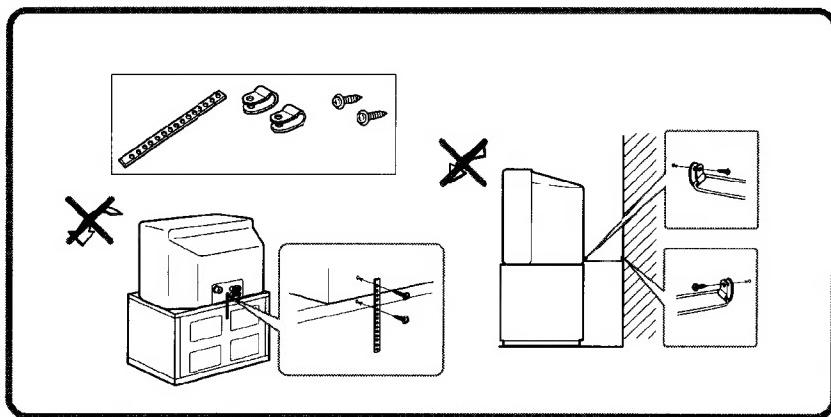
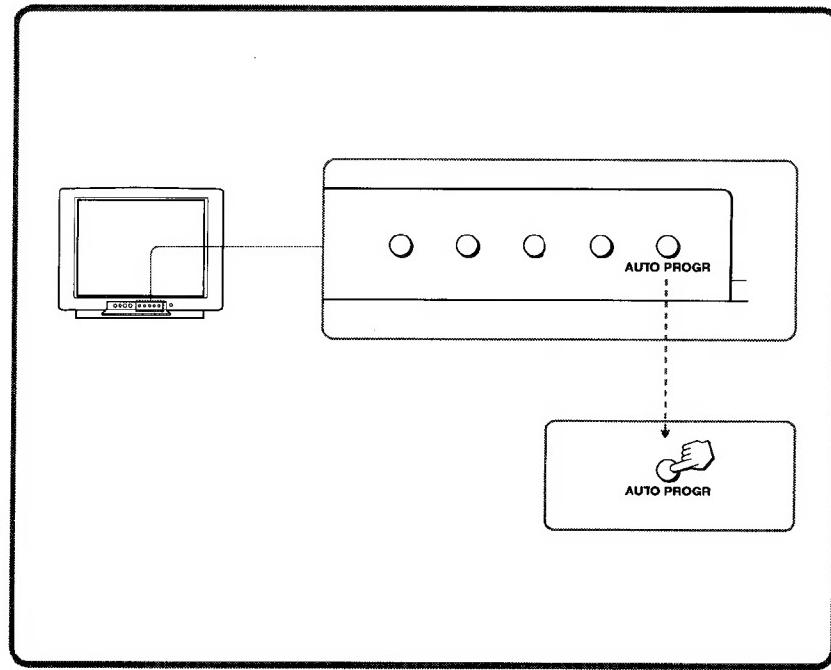
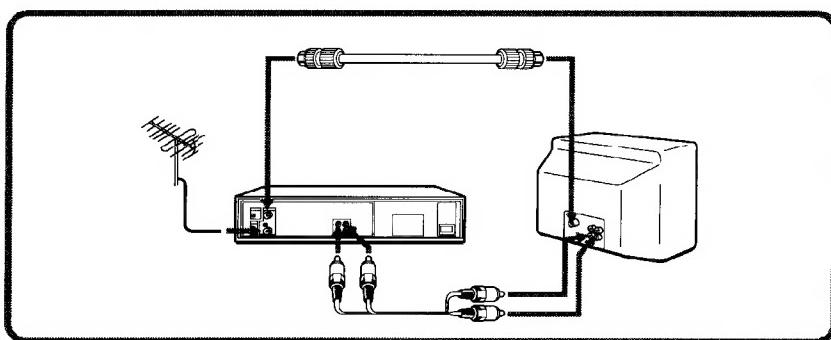
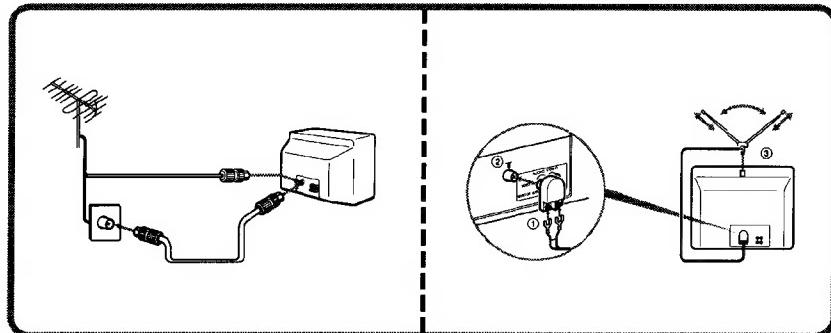
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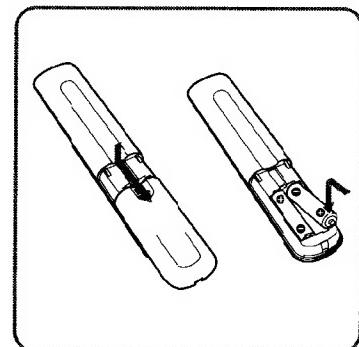
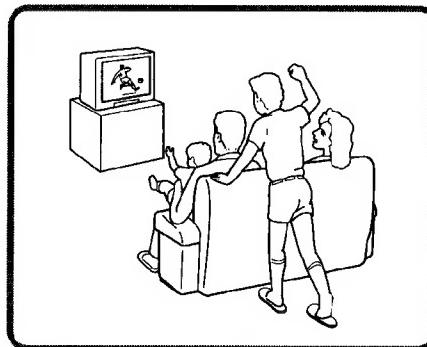
**SECTION 1  
GENERAL**

The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

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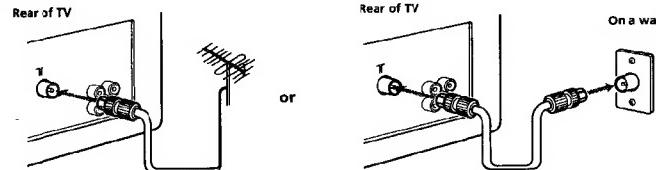


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## Connections

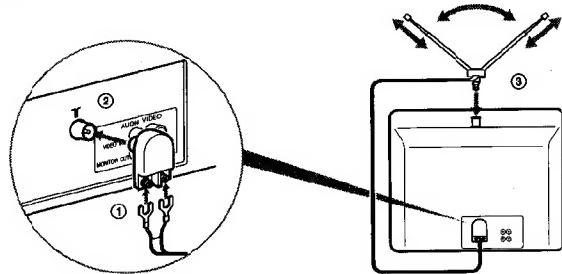
### Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the T (antenna) socket at the rear of the TV.



### Connecting an indoor antenna

■ KV-G14/G21/2197



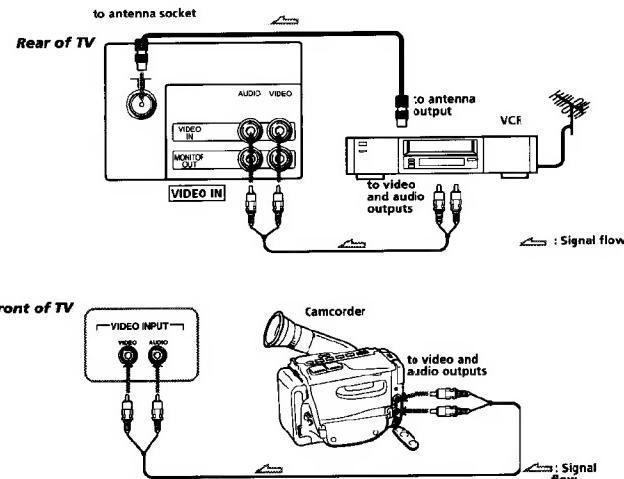
#### Note

- You are advised to use an outdoor antenna for better reception.

## Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder or video game.

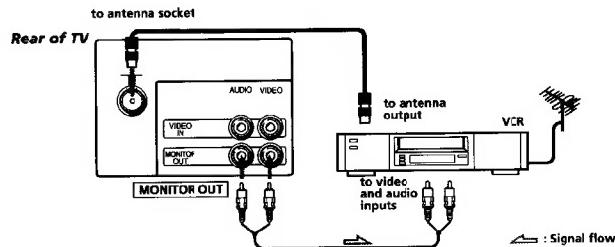
### Connecting video equipment using VIDEO IN jacks



#### When using the video input jacks

Do not connect video equipment to the VIDEO input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

### Connecting audio/video equipment using MONITOR OUT jacks



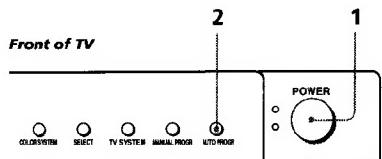
#### When recording through the MONITOR OUT jacks

If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.

## Presetting channels

### Presetting channels automatically

You can preset up to 80 TV channels in numerical sequence from program position 1.

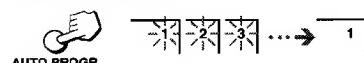


#### 1 Press POWER.



When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Press AUTO PROGR.



#### To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- to select the program position.
- 3 Press AUTO PROGR.

### Presetting channels manually

To change the channel for a particular program position or to receive a channel with a weak signal, preset the channel manually.

#### 1 Press MANUAL PROGR.

#### 2 Press PROGR +/- until the required program position appears on the screen.

#### 3 Press VOLUME +/- on the TV until the required channel picture appears on the screen.

#### 4 Press MANUAL PROGR.

### Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/-.

#### 1 Press PROGR +/- until the unused or unwanted program position appears on the screen.

#### 2 Press MANUAL PROGR.

#### 3 Press PIC MODE on the remote commander.

#### 4 Press MANUAL PROGR.

#### To cancel the skip setting

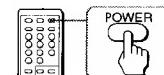
Preset the channel manually or automatically again.

## Operations

## Watching the TV

### Switching off the TV

To switch off the TV temporarily, press POWER on the remote commander.



To switch off the TV completely, press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator may remain alight for a while.



#### 1 Press POWER to turn the TV on.

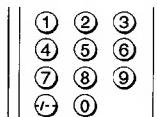


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Select the TV channel you want to watch.

##### To select a channel directly

Press a number button.



To select a two-digit channel, press "----" before the number buttons.

For example: to select channel 25, press "----," and then "2" and "5."



##### To scan through channels

Press PROGR +/- until the channel you want appears.

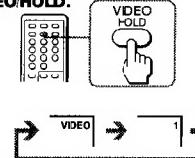


#### 3 Press VOL +/- to adjust the volume.

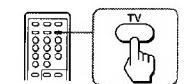


### Watching the video input

#### Press VIDEO/HOLD.

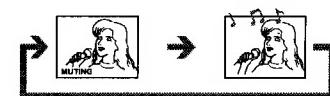
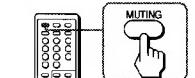


#### To watch TV, press TV.



### Muting the sound

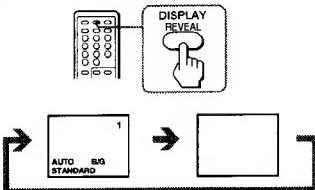
#### Press MUTING.



## Displaying on-screen information

### Press DISPLAY/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

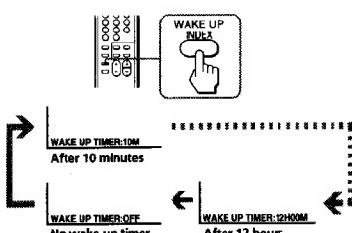


## Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

### 1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears and the WAKE UP indicator lights up.



### 2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video mode.

### 3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

#### Notes

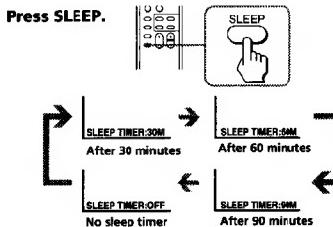
- The Wake Up Timer starts immediately after the on-screen display disappears.

- The last TV program position or video mode just before the TV turns into standby mode will appear when the TV is turned on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. When you want to continue watching the TV, press any button or control on the TV or remote commander.

## Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

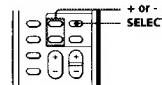
### Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

## Changing the on-screen display language

If you prefer Chinese to English, you can change the on-screen display language. You can use buttons on the remote commander or the TV.



### 1 Press SELECT until the screen appears as follow:



### 2 Press + or - to select "中文".



#### Note

- You can also use VOLUME +/- on the TV to select the on-screen display language.

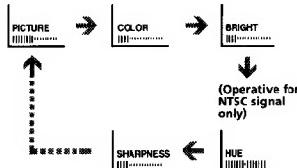
## Adjusting the picture

### Adjusting the picture setting

#### 1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



#### 2 Press + or - to adjust the item.



#### 3 To adjust other items, repeat steps 1 and 2.

#### Note

- You can also use VOLUME +/- on the TV to adjust the picture setting.

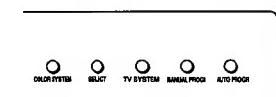
#### If the color of the picture is abnormal

Press COLOR SYSTEM or adjust the color setting until the color becomes normal.

#### Note

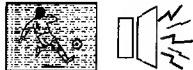
- Normally set COLOR SYSTEM to AUTO.

#### Front of TV



**Additional Information****Troubleshooting**

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.  
If the problem persists, contact your nearest authorized service center or dealer.

**Snowy picture  
Noisy sound**

- Check the antenna.
- Check the antenna connection on the TV and/or the wall.

**Dotted lines or stripes**

- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.). Adjust the antenna for minimum interference.

**Double images or "ghosts"**

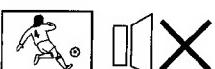
- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

**Notes**

- When you switch on the TV, you may hear the "boon" sound that is caused by the demagnetization of the TV. This does not indicate a malfunction.
- The picture color may become abnormal if you change the direction of your TV. To obtain the normal picture color, press POWER on the TV to switch off the TV for five minutes and then switch it on again.
- Design and specifications are subject to change without notice.

**No picture  
No sound**

- Press POWER.
- Check the antenna connection.
- Check the VCR connections.
- Check the power cord connection.
- Check the standby mode.

**Good picture  
No sound**

- Press VOLUME +.
- Press MUTING.

**No color**

- Adjust the COLOR level in the on-screen display.
- Check the COLOR SYSTEM setting.

**TV cabinet creaks**

- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

**Note on the remote commander**

- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

**Note on the TV SYSTEM button**

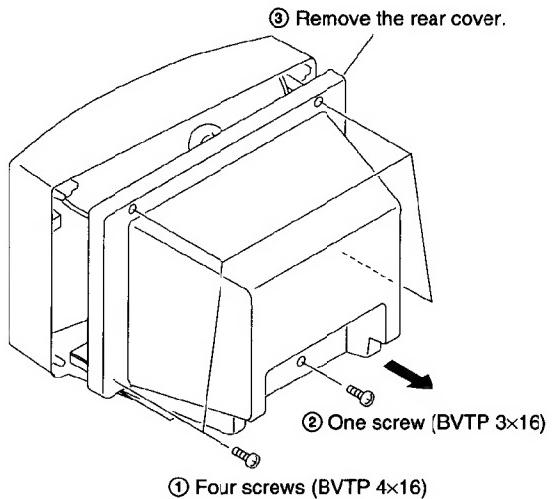
- The TV SYSTEM button is not used on your TV.

**WARNING**

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

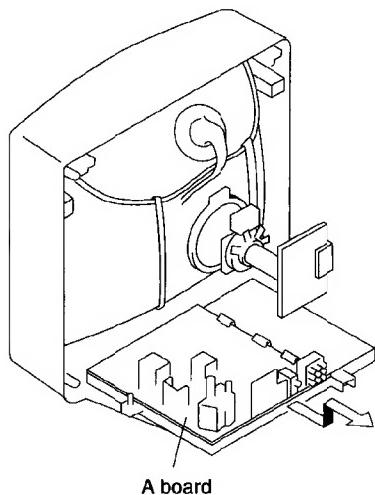
## SECTION 2 DISASSEMBLY

### 2-1. REAR COVER REMOVAL

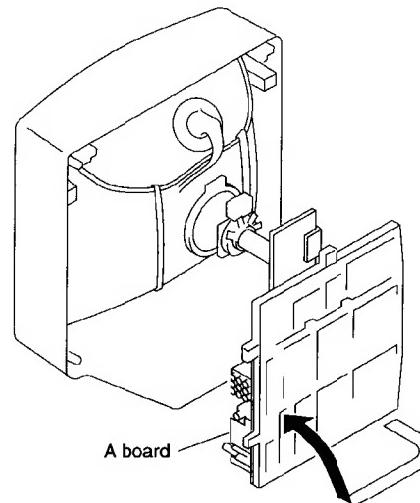


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### 2-2. A BOARD REMOVAL

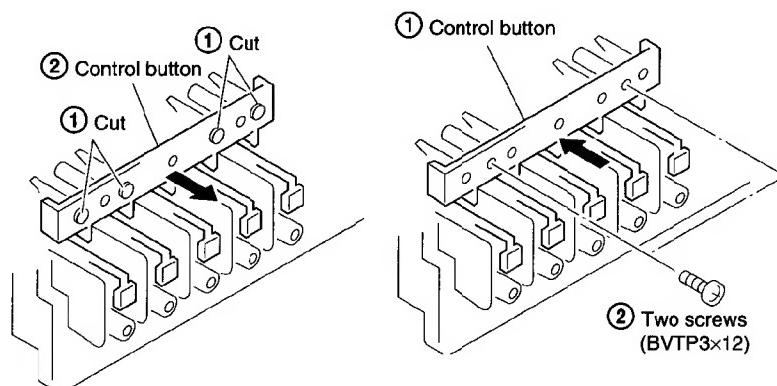


### 2-3. SERVICE POSITION



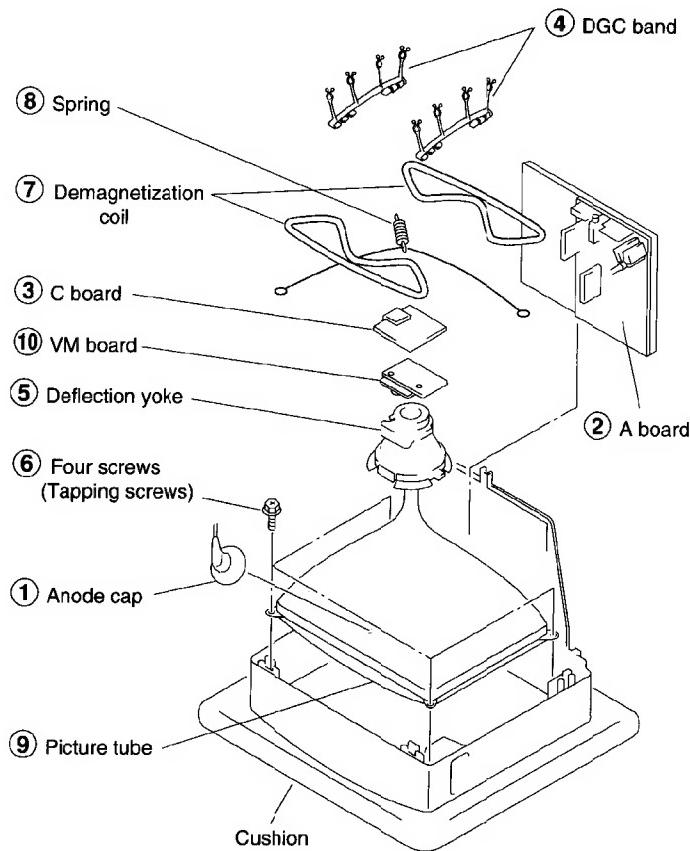
### 2-4. REPLACEMENT OF CONTROL BUTTON

For replacement of the control button cut the welded portions from them, exchange with the new parts, and fix them with screws (+BVTP).



## 2-5. DEMAGNETIZATION COIL AND PICTURE TUBE REMOVAL

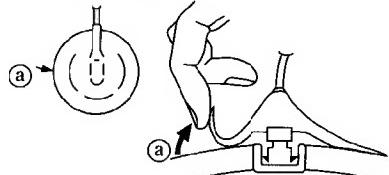
- 10 -



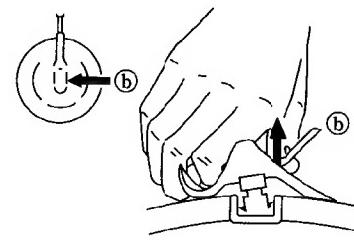
### • REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

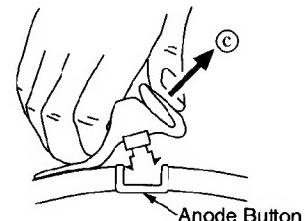
### • REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



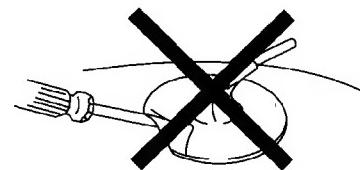
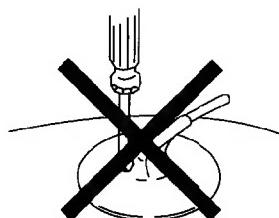
- ② Using a thumb press down then pull up the rubber cap firmly in the direction indicated by the arrow (b).



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c).

### • HOW TO HANDLE AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-caps. A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard.  
The shatter-hook terminal will stick out or damage the rubber.



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

PICTURE control ..... normal  
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

- Beam Landing
- Convergence
- Focus
- White Balance

**Note :** Test Equipment Required.

- Color-bar/Pattern Generator
- Degausser
- Oscilloscope

#### Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

#### 3-1. BEAM LANDING

- Input the white raster signal with the pattern generator.  
Contrast } normal  
Brightness }
- Position neck assy as shown in Figure 3-1.
- Set the pattern generator raster signal to a green raster.
- Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
- Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-1.)
- Switch the raster signal to blue, then to red and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

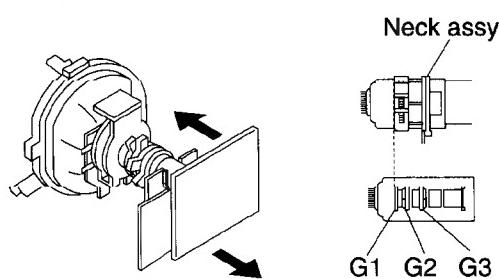


Fig. 3-1

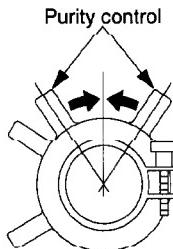


Fig. 3-2

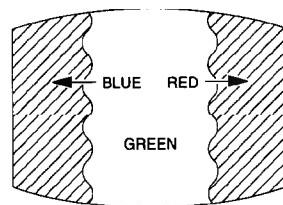


Fig. 3-3

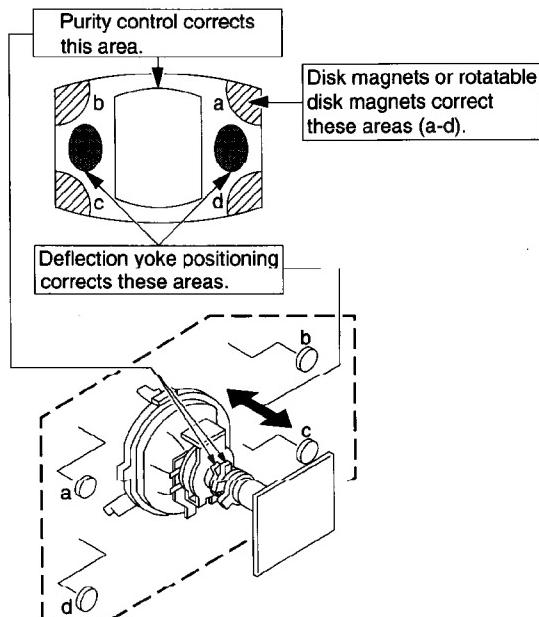


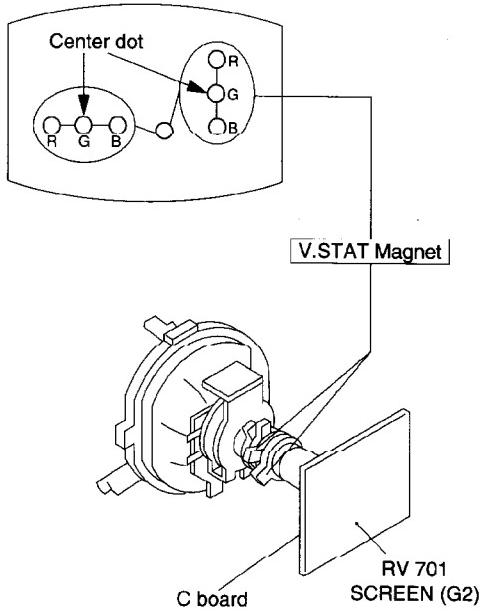
Fig. 3-4

### 3-2. CONVERGENCE

#### Preparation :

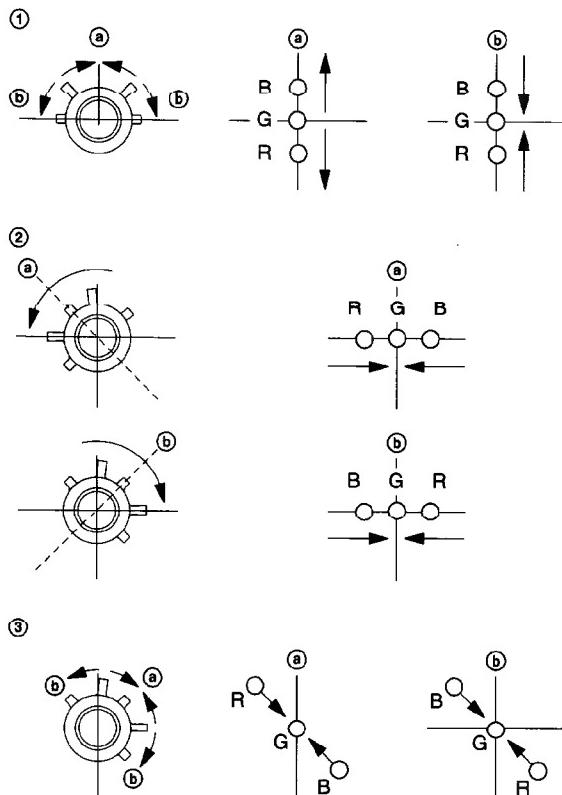
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

#### (1) Horizontal and Vertical Static Convergence

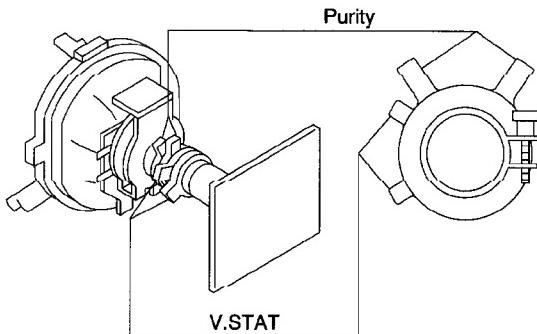
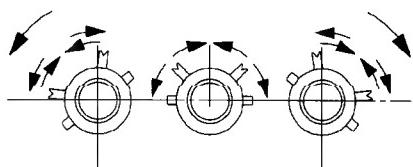


#### • Operation of V.STAT magnet.

If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green and blue dots move as shown below.



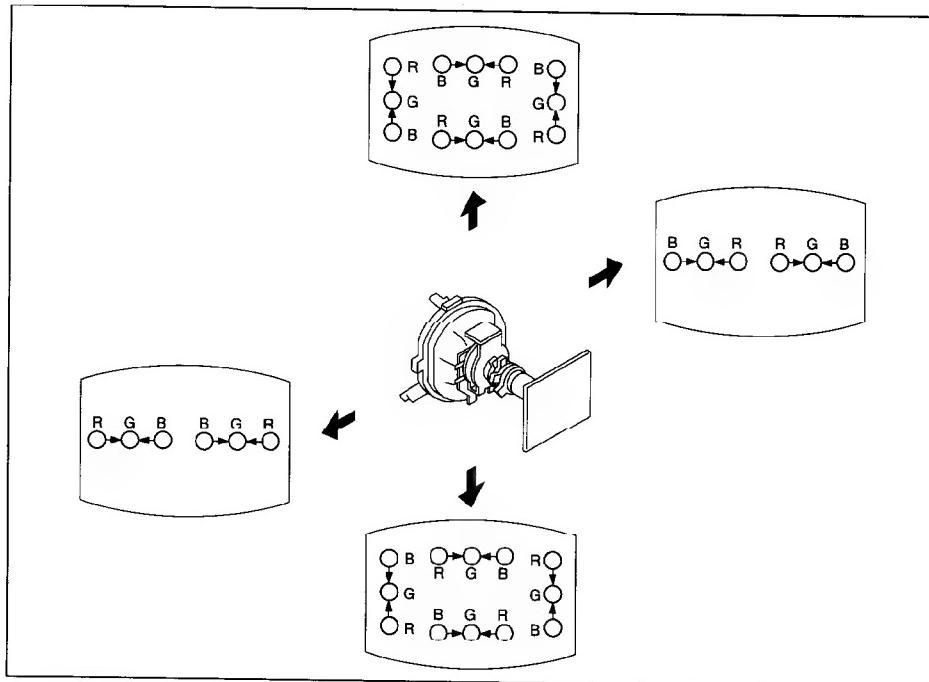
1. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue points are on top of each other at the center of the screen.
2. (Moving horizontally), adjust the H.STAT VR magnet so that the red, green and blue points are on top of each other at the center of the screen.
3. Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



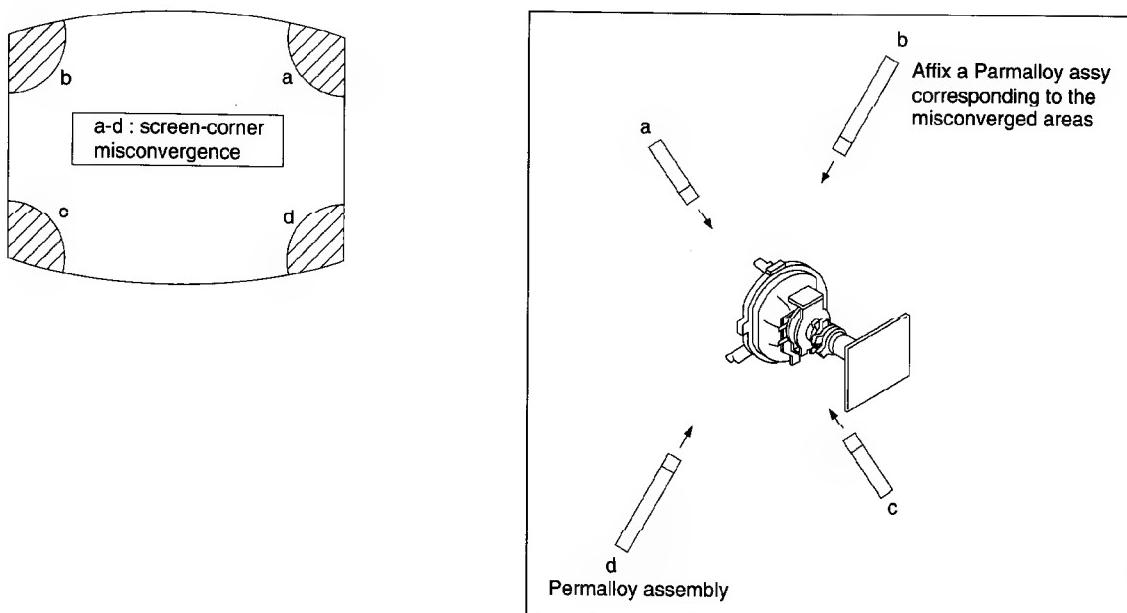
**(2) Dynamic Convergence Adjustment**

**Preparation :**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- 1. Slightly loosen the deflection yoke screws.
- 2. Remove the deflection yoke spacer.
- 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
- 4. Tighten the deflection yoke screws.
- 5. Install the deflection yoke spacer.

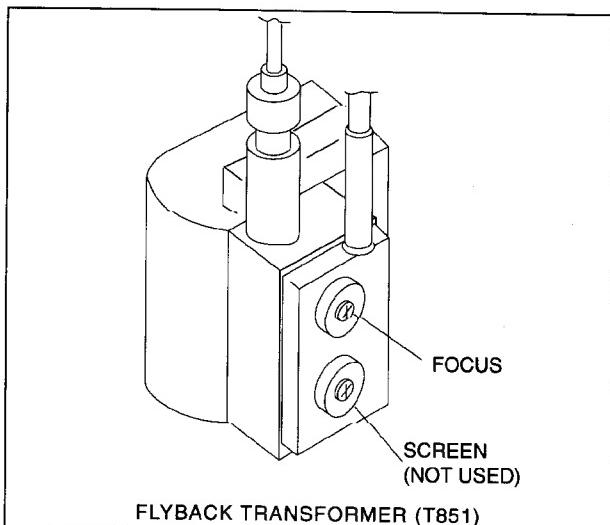


**(3) Screen-corner Convergence**



### 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



**Note:** Screen VR is not used.

#### a. AN ITEM OF ADJUSTMENT

Item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

#### b. METHOD OF CANCELLATION FROM SERVICE MODE

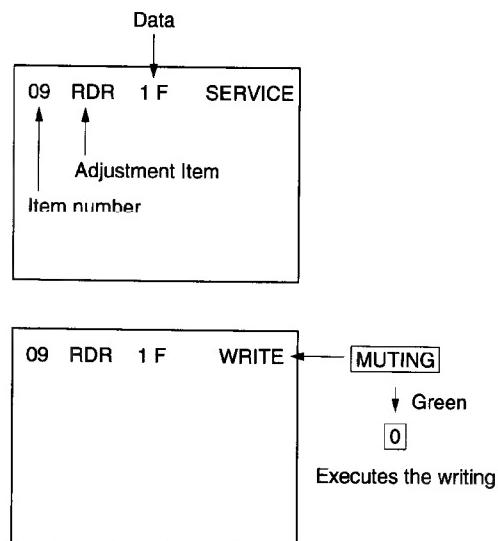
Set the standby condition (Press **POWER** button on the commander) and then press **POWER** button again, hereupon it becomes TV mode.

#### c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **[1]** (UP) and **[4]** (DOWN), select an item of adjustment.
- 3) Press **MUTING** button and it will indicate **WRITE** on screen.
- 4) Press **[0]** button to write into memory.

#### d. MEMORY WRITE CONFIRMATION METHOD

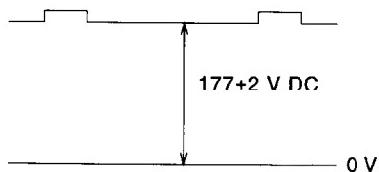
- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm they were adjusted.



### 3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

#### 1. G2 (SCREEN) ADJUSTMENT (RV701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



#### 2. WHITE BALANCE ADJUSTMENTS

- 1) Set to Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with **[1]** and **[4]**, and then set the level to 25 with **[3]** and **[6]**.
- 5) Select GDR(0A) and BDR(0B) with **[1]** and **[4]** and adjust the level with **[3]** and **[6]** for the best white balance.
- 6) Write into the memory by pressing **MUTING** then **[0]**.

## SECTION 4

### SELF DIAGNOSIS FUNCTION

If no acknowledgement is returned from a device which is turned "ON", the device has a problem.  
In this case, one of the LED's responding to the problem device will flicker a defined number of times.

Flickering is operated by lighting the LED's for 60ms each time.

The flickering frequency responding to each failed device is shown below.

Device	NONVOL.ATII.F. MEMORY	—	Y/C JUNGLE	—	—	AUDIO PROCESSOR (TA8776N)
Flickering Frequency	1	—	3	—	—	6

All the devices are checked one after another from the left of the table.  
If an error is found, the responding LED will start flickering.  
So, if more than 1 device have failed, only the one on the left side will flicker.

## SECTION 5

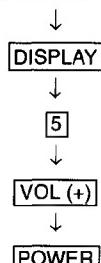
### CIRCUIT ADJUSTMENTS

#### 5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-870 that comes with this unit.

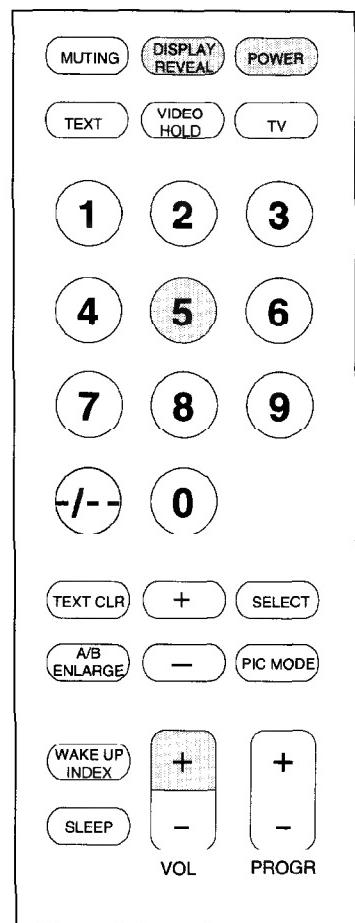
##### Entering service mode

With the unit on standby



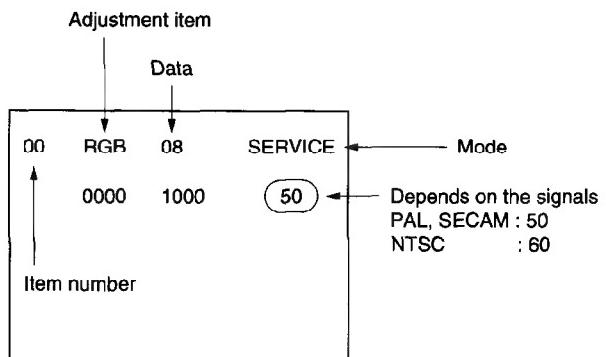
The operation sequence puts the unit into service mode.

- |               |   |
|---------------|---|
| [1], [4]      | Select the adjustment item.                               |
| ↓             |   |
| [3], [6]      | Raise/lower the data value.                               |
| ↓             |   |
| <b>MUTING</b> | Writes.   |
| ↓             |   |
| [0]           | Executes the writing.                                     |
|               |   |
| [7], [0]      | All the data becomes the values in memory.                |
| [8], [0]      | All user control goes to the standard state.              |
| [5], [0]      | Service data initialization (Be sure not to use usually.) |
| [2], [0]      | Write 50Hz adjustment data to 60Hz, or viceversa.         |



RM-870

The screen display is :



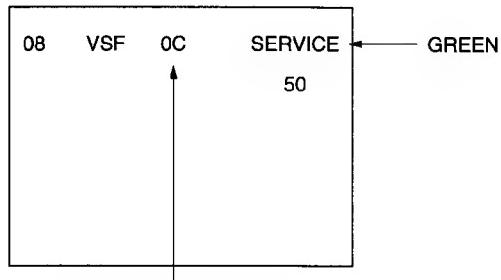
## 5-2. ADJUSTMENT METHOD

Item Number 08

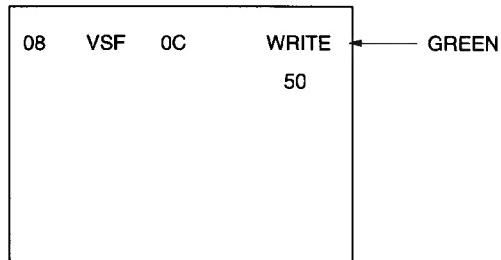
This explanation uses V-SHIFT as an example.

1. Select 08 VSF with the **[1]** and **[4]** buttons.
2. Raise/lower the data with the **[3]** and **[6]** buttons.
3. Select the optimum state. (The standard is 0F for PAL reception.)
4. Write with the **[MUTING]** button. (The display changes to WRITE.)
5. Execute the writing with the **[0]** button. (The WRITE display returns to green SERVICE.)

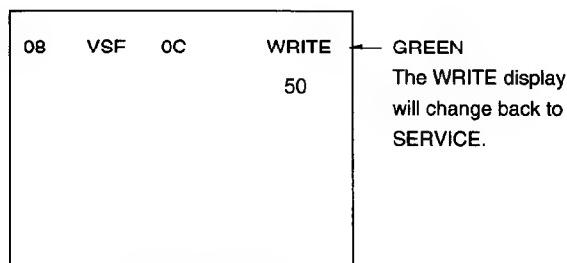
Use the same method for Items Number 00-31. Use **[1]** and **[4]** to select the adjustment item, use **[3]** and **[6]** to adjust, write with **[MUTING]**, then execute the write with **[0]**.



Adjusted with **[3]** and **[6]** buttons



Written with **[MUTING]**



Write executed with **[0]**

Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data	Standard data			Note	Device
00	HSF	00-3F	24	50: 2C	60: 33		H SHIFT	(TDA8375)
01	HSZ	00-3F	23	50: 30	60: 30		H SIZE	(TDA8375)
02	PAP	00-3F	21	50: 25	60: 25		PIN AMPLITUDE	(TDA8375)
03	CNP	00-3F	29	50: 10	60: 0C		CORNER PIN	(TDA8375)
04	TLT	00-3F	20	50: 20	60: 2D		TILT	(TDA8375)
05	VSL	00-3F	20	50: 1F	60: 1F		V SLOPE	(TDA8375)
06	VAP	00-3F	1D	50: 1C	60: 1B		V AMPLITUDE	(TDA8375)
07	SCR	00-3F	20	50: 16	60: 16		S CORRECTION	(TDA8375)
08	VSF	00-3F	20	50: 15	60: 15		V SHIFT	(TDA8375)
09	RDR	00-3F	25		28		WHITE POINT R	(TDA8375)
0A	GDR	00-3F	20				WHITE POINT G	(TDA8375)
0B	BDR	00-3F	20				WHITE POINT B	(TDA8375)
0C	FO	00-03	00	TV: 00	VIDEO: 00	TEXT: 01	PHI-1 TIME CONSTANT	(TDA8375)
0D	AGC	00-3F	30	TV: 30	VIDEO: 30	TEXT: 30	AGC TAKE OVER	(TDA8375)
0E	VSW	00-01	00	TV: 00	VIDEO: 01	TEXT: 00	VIDEO MUTE	(TDA8375)
0F	FOR	00-03	00		03		FORCED FIELD FREQ.	(TDA8375)
10	DL	00-01	00				INTERLACE	(TDA8375)
11	POC	00-01	00				POC FIX	(TDA8375)
12	VID	00-01	00	50: 00	60: 00		VIDEO IDENT MODE	(TDA8375)
13	HCO	00-01	00	50: 00	60: 00		EHT TRACKING MODE	(TDA8375)
14	EVG	00-01	00	50: 00	60: 00		ENABLE V GUARD	(TDA8375)
15	SBL	00-01	00	50: 00	60: 00		SERVICE BLANKING	(TDA8375)
16	PRD	00-01	00	50: 00	60: 00		OVER-VOLTAGE INPUT	(TDA8375)
17	COR	00-01	00	TV: 00	VIDEO: 00	TEXT: 00	NOISE CORING PEAK	(TDA8375)
18	PMX	00-3F	2D		2B		PICTURE MAX DATA	(TDA8375)
19	PMI	00-3F	00		04		PICTURE MIN DATA	(TDA8375)
1A	SBR	00-7F	4B				SUB-BRIGHTNESS	(TDA8375)
1B	SHU	00-0F	07				SUB-HUE	(TDA8375)
1C	SSH	00-03	01	TV: 01	VIDEO: 02		SUB-SHARPNESS	(TDA8375)
1D	SC1	00-3F	1F	50: 26	60: 29		SUB-COLOR LOWER	(TDA8375)
1E	SC2	00-3F	0D	50: 0C	60: 0D		SUB-COLOR HIGHER	(TDA8375)
1F	AIP	00-7F	3F				ADJUSTMENT IF-PLL	(TDA8375)
20	VZM	00-3F	19				VERTICAL ZOOM	(TDA8375)
21	TXP	00-0F	09		07		TEXT PICTURE CONT.	(SAA5281)
22	MXP	00-0F	0D		0A		TEXT MIX MODE PIC.	(SAA5281)
23	BKP	00-3F	00				BLK OFF PICTURE	(CXP85200)
24	ODL	00-FF	10				POWER ON DELAY	(CXP85200)
25	OFR	00-0F	00				REMO. CON. RGB OUT	(CXP85200)
26	OFM	00-0F	00				MAIN POWER RGB OUT	(CXP85200)
27	OSH	00-3F	0A				OSD POSITION H	(CXP85200)
28	MUT	00-01	01		00		NO SYNC. MUTE	(CXP85200)
29	ABL	00-01	01		00		BRIGHT ABL	(CXP85200)
2A	DIV	00-01	00				DISABLE TV KEY	(CXP85200)
2B	SCM	00-01	01		00		SECAM TRAP ACTIVE	(CXP85200)
2C	ROC	00-0F	07				TILT CENTER VOLTAGE	(CXP85200)
2D	ROS	00-07	03				USER TILT STEP WIDTH	(CXP85200)
2E	DVM	00-01	00				DISABLE VM MUTE	(CXP85200)
2F	POM	00-01	00				VOLUME MF MIN PORT MUTE	(CXP85200)
30	OP0	00-FF	40				OPTION 0	(CXP85200)
31	OP1	00-FF	08				OPTION 1	(CXP85200)

**NOTE**

- Standard Data: Those are the standard data values written on the microprocessor. Therefore, the data values of the modes are stored respectively in the memory.  
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.
- 50 ..... 50 Hz data
- 60 ..... 60 Hz data
- Standard data listed on the adjustment item table are reference values, therefore it is different for every model.

**ITEM INFORMATION**

- 10. DL: TV/MIX Mode 0=Interlace 1=Non interlace, TEXT Mode 0=Non interlace 1=Interlace
- 29. ABL: Bright ABL ON/OFF ON=1 OFF=0
- 30. OP0, • 31. OP1 :  
Input data are different according to models.  
AV INPUT : 00 → NO MODEL, 01 → MONO, CXA1315, 10/11 → STEREO, TDA8424  
TV System : 00 → Multi model, 01 → B/G, 11 → B/G, NTSC, SECAM, Chin

**No 30 OP0 \* Input data are different according to models.**

Item	-	AV Input		-	-	-	Arabic	Saudi
KV-2197M5	0	0	1	0	0	0	1	0
KV-2197M5S	0	0	1	0	0	0	1	0

**No 31 OP1**

Item	-	-	-	TV System		NTSC	SECAM	Chin
KV-2197M5	0	0	0	0	1	0	1	0
KV-2197M5S	0	0	0	0	1	0	1	0

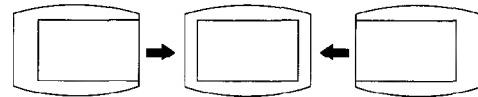
**5-3. A BOARD ADJUSTMENT AFTER IC003  
(MEMORY) REPLACEMENT**

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.  
In case some items are not well-adjusted, give them fine adjustment.  
Write the data for each item number ([MUTING] + [0]).
4. Select item numbers “30” (OP0) and “31” (OP1) and set the bit with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return all user adjustments to the data that was set on shipment from the factory.  
(= Cancel Service Mode).

**5-4. PICTURE DISTORTION ADJUSTMENT**

Item Number 00 – 08

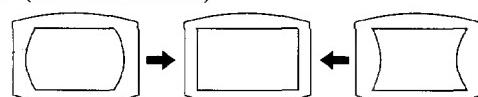
00 HSF (H SHIFT)



01 HSZ (H SIZE)



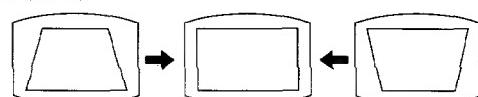
02 PAP (PIN AMPLITUDE)



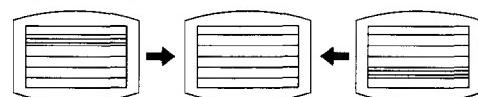
03 CNP (CORNER PIN)



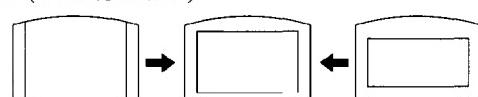
04 TLT (TILT)



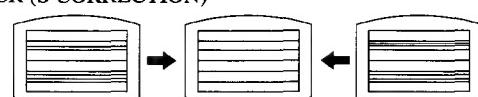
05 VSL (V SLOPE)



06 VAP (V AMPLITUDE)



07 SCR (S CORRECTION)

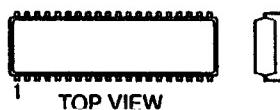


08 VSF (V SHIFT)



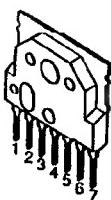
#### 6-4. SEMICONDUCTORS

CXP85220A-047S (64PIN)  
ST24C04CB1 (8PIN)  
TDA4665T-T (16PIN)  
TDA8375A (56PIN)  
TDA8395T (20PIN)

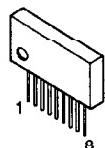


Dual In-line Package  
Pin 6 ~ 98

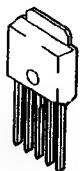
LA7830



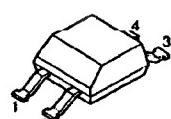
NJM2234L (8PIN)



L78LR05D-MA



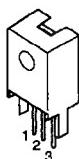
PC123F2



PQ09RE11



SBX1790-11

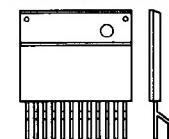


SE115N



STR-S6707

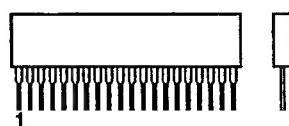
MARKING SIDE VIEW



Zig-zag In-line Package  
Pin 6~99

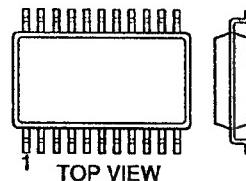
TA8248K

MARKING SIDE VIEW



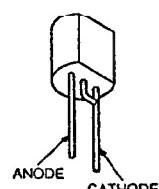
Single In-line Package  
Pin 6 ~ 99

$\mu$ PC4558G2 (8PIN)



Small Outline L-leaded Package  
Pin 8 ~ 98

$\mu$ PC574J



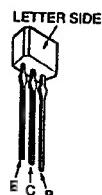
UN2211  
UN2213  
UN2216  
2SA1162-G  
2SD601A-Q



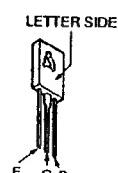
2SA1091-O



2SC2410SN  
2SC2785-HFE



2SC2611



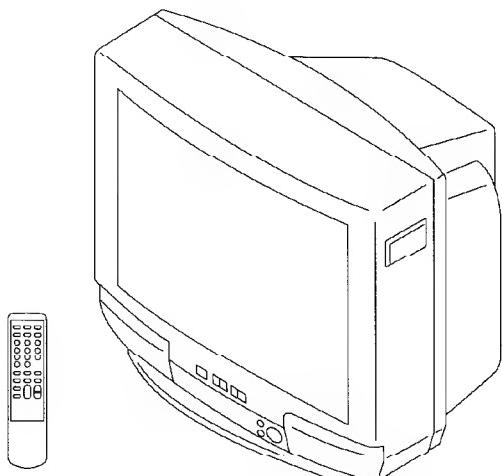
2SC3209LK



# SERVICE MANUAL

BG-1S CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<b>KV-T25MN8</b>	RM-870	Hong Kong	SCC-J16H-A				
<b>KV-T25MN81</b>	RM-870	GE	SCC-J40Q-A				
<b>KV-T25SF8</b>	RM-870	Australia	SCC-J99C-A				
<b>KV-T25SF81</b>	RM-870	New Zealand	SCC-K37C-A				



TRINITRON® COLOR TV  
**SONY®**

**SPECIFICATIONS**

		Note
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G, I, D/K, M	
<b>Color system</b>	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
<b>Channel coverage</b>		
B/G	VHF : E2 to E12 / UHF : E21 to E69 / CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 / CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39	KV-G25M11
	VHF : R1 to R12 / UHF : R21 to R60 / CATV : S01 to S03, S1 to S41	except KV-G25M11
M	VHF : A2 to A13 / UHF : A14 to A79 / CATV : A-8 to A-2, A to W+4, W+6 to W+8	KV-G25M11
	VHF : A2 to A13 / UHF : A14 to A79 / CATV : A-8 to A-1, A to D, F to W+21, W+23 to W+84	except KV-G25M11
<b>Audio output (speaker)</b>	5W	
<b>Inputs</b>	Antenna: 75 ohms VIDEO IN jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance	
<b>Outputs</b>	Earphone jack: minijack MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
<b>Picture tube</b>	25 in.	
Tube size (cm)	64	Measured diagonally
Screen size (cm)	60	Measured diagonally
<b>Dimensions (w/h/d, mm)</b>	613 x 542 x 472	
<b>Mass (kg)</b>	32	

Design and specifications are subject to change without notice.

**CAUTION**

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

**SAFETY-RELATED COMPONENT WARNING!!**

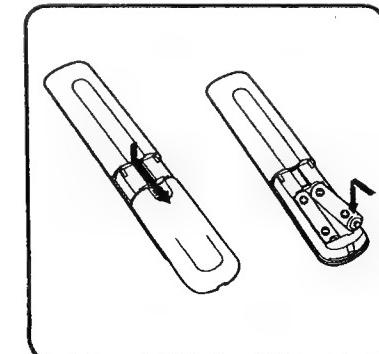
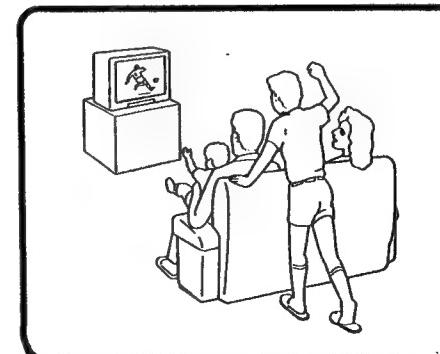
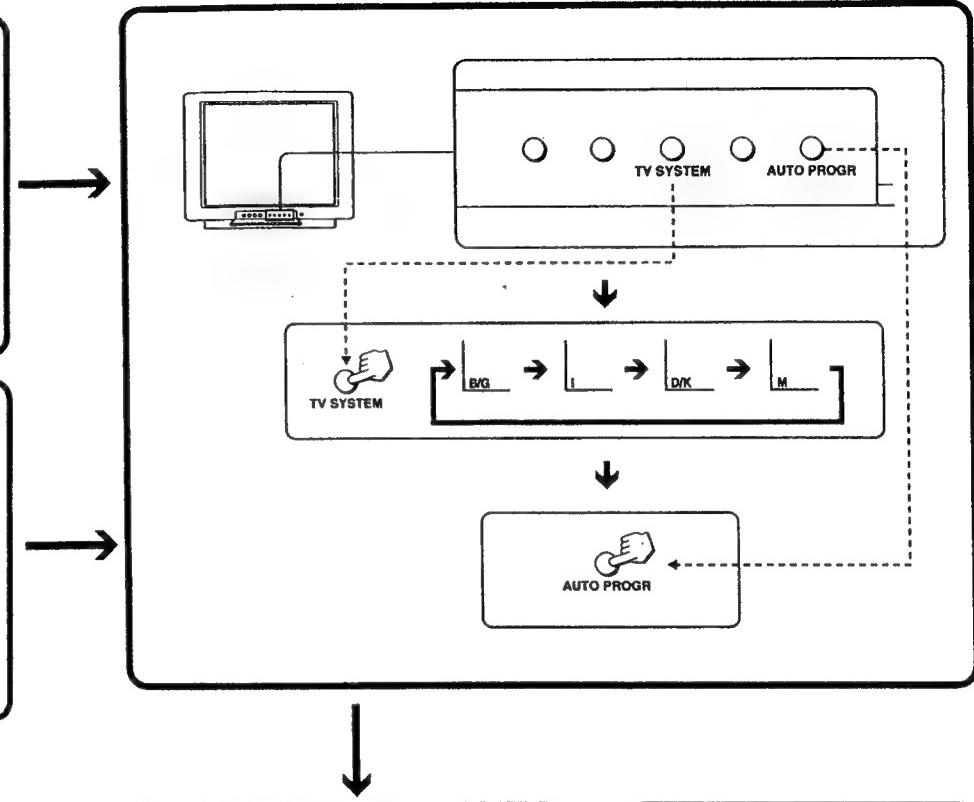
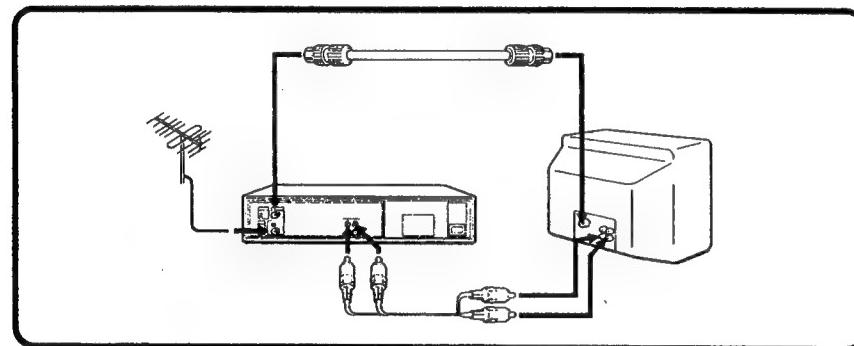
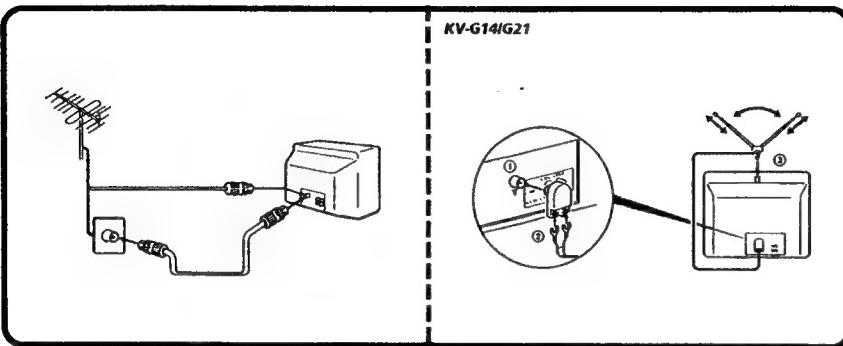
**COMPONENTS IDENTIFIED BY SHADING AND MARK ▲ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

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## SECTION 1 GENERAL

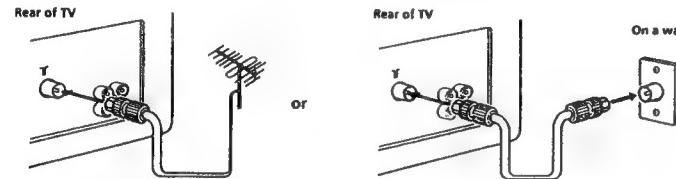
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



## Connections

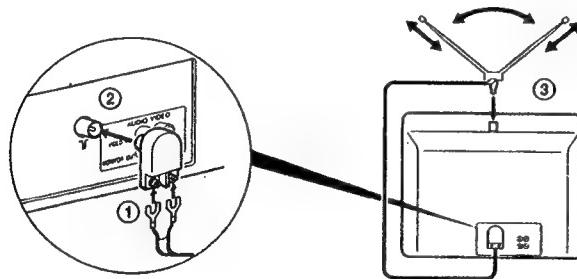
### Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the **T** (antenna) socket at the rear of the TV.



### Connecting an indoor antenna

■ KV-G14/G21



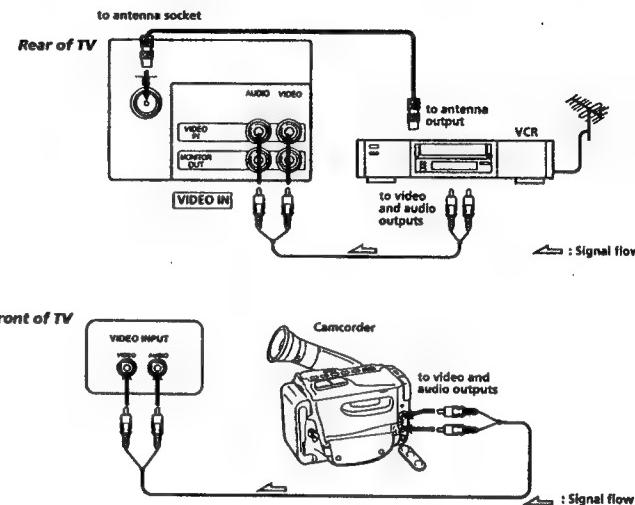
#### Note

- You are advised to use an outdoor antenna for better reception.

### Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, or video game.

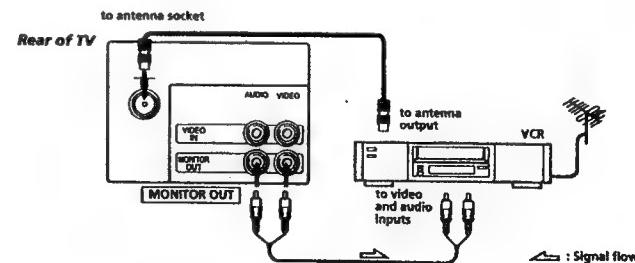
#### Connecting video equipment using VIDEO IN jacks



#### When using the video input jacks

Do not connect video equipment to the VIDEO input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

#### Connecting audio/video equipment using MONITOR OUT jacks



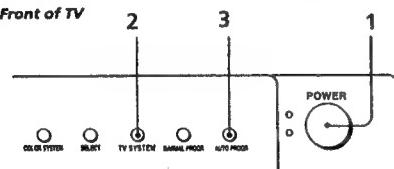
**When recording through the MONITOR OUT jacks**  
If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.

## Presetting channels



### Presetting channels automatically

You can preset up to 80 TV channels in numerical sequence from program position 1.

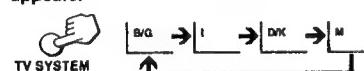


#### 1 Press POWER.

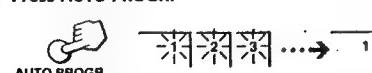


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Press TV SYSTEM until your local TV system appears.



#### 3 Press AUTO PROG.



To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROGR.
- 2 Press TV SYSTEM to select your local TV system.
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROGR.

**G-EN | Getting Started**

### Presetting channels manually

To change the channel for a particular program position or to receive a channel with a weak signal, preset the channel manually.

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- until the required program position appears on the screen.
- 3 Press TV SYSTEM until your local TV system appears.
- 4 Press VOLUME +/- on the TV until the required channel picture appears on the screen.

#### 5 Press MANUAL PROGR.

If the TV system is not properly selected  
The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

- 1 Press PROGR +/- to select the program position.
- 2 Press TV SYSTEM until the picture and sound become normal.

#### Notes

- If you do not know your local TV system, consult your nearest authorized service center or dealer.
- The setting of the TV SYSTEM is memorized for each program position.

### Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/-.

- 1 Press PROGR +/- until the unused or unwanted program position appears on the screen.

#### 2 Press MANUAL PROGR.

#### 3 Press PIC MODE on the remote commander.

#### 4 Press MANUAL PROGR.

#### To cancel the skip setting

Preset the channel manually or automatically again.

## Operations

### Watching the TV



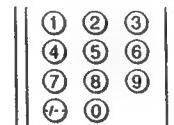
#### 1 Press POWER to turn the TV on.



When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

#### 2 Select the TV channel you want to watch.

To select a channel directly  
Press a number button.



To select a two-digit channel, press "-/-" before the number buttons.

For example: To select channel 25, press "-/-" and then "2" and "5."



#### To scan through channels

Press PROGR +/- until the channel you want appears.

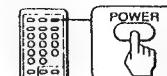


#### 3 Press VOL +/- to adjust the volume.



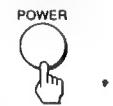
### Switching off the TV

To switch off the TV temporarily, press POWER on the remote commander.



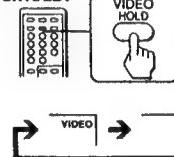
To switch off the TV completely, press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator may remain alight for a while.

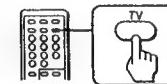


### Watching the video input

Press VIDEO/HOLD.

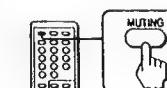


To watch TV, press TV.



### Muting the sound

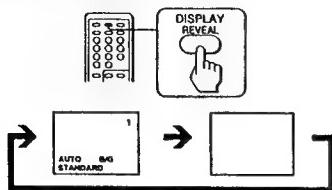
Press MUTING.



## Displaying on-screen information

Press DISPLAY/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

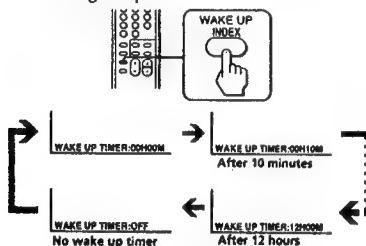


## Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

**1 Press WAKE UP/INDEX repeatedly to set the timer.**

The on-screen display appears and the WAKE UP Indicator lights up.



**2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video mode.**

**3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.**

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

### Notes

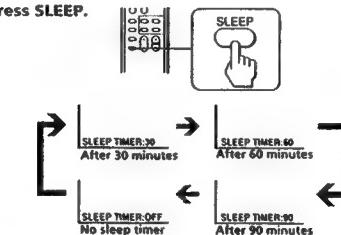
- The Wake Up Timer starts immediately after the on-screen display disappears.

- The last TV program position or video mode just before the TV turns into Standby mode will appear when the TV turns on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. When you want to continue watching the TV, press any button or control on the TV or remote commander.

## Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

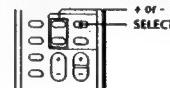
Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

## Changing the on-screen display language

If you prefer Chinese to English, you can change the on-screen display language. You can use buttons on both the remote commander and the TV.



**1 Press SELECT until the screen appears as follows:**



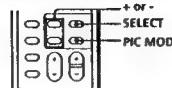
**2 Press + or - to select "中文".**



### Notes

- You can also use VOLUME +/- on the TV to select the on-screen display language.

## Adjusting the picture

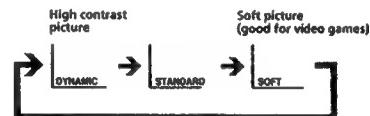


## Selecting the picture mode

Press PIC MODE until the mode you want appears.



Each time you press PIC MODE, the screen changes as follow:



### Note

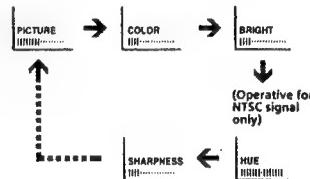
- If you change the picture mode after the following adjustments, the adjustment changes in accordance with the picture mode.

## Adjusting the picture setting

**1 Press SELECT until the item you want to adjust appears.**



Each time you press SELECT, the screen changes as follows:



**2 Press +/- to adjust the item.**



**3 To adjust other items, repeat steps 1 and 2.**

### Note

- You can also use VOLUME +/- on the TV to adjust the picture setting.

### If the color of the picture is abnormal

When receiving programs through the T terminal:  
Press TV SYSTEM or COLOR SYSTEM or adjust the color setting until the color becomes normal.

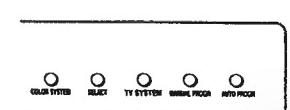
### Note

- Normally set COLOR SYSTEM to AUTO.

### If the sound is distorted or noisy

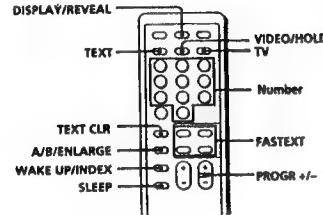
When receiving programs through the V terminal:  
Press TV SYSTEM until the sound becomes clear.

## Front of TV



## Viewing Teletext

■ KV-G25M11 only

**Displaying Teletext**

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press TEXT to display the Teletext. A Teletext page is displayed (normally the index page). If there is no Teletext broadcast, 100 is displayed at the top left corner of the screen.

To cancel the Teletext display, press TV.

**Superimposing a Teletext page on the TV picture**

Press TEXT. Each time you press TEXT, the screen changes as follows:

**Checking the contents of a Teletext service (INDEX)**

Press WAKE UP/INDEX to display an overview of the Teletext contents and page numbers.

**Using FASTEXT**

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT page is broadcasted, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the RED, GREEN, YELLOW, and CYAN buttons on the remote commander.

Press the color button which corresponds to the color-coded menu.

The page is displayed after a few seconds.

**Selecting a Teletext page**

To input the three-digit page number of the Teletext page, press the number buttons. If you make a mistake, key in the correct page number again.

To access the next or previous page, press PROGR +/-.

**Holding a Teletext page (subpage)**

Press VIDEO/HOLD.

The HOLD symbol "■" is displayed at the top left corner of the screen.

To resume normal Teletext operation, press VIDEO/HOLD again or TEXT.

**Revealing concealed information**

Press DISPLAY/REVEAL.

To conceal the information, press DISPLAY/REVEAL again.

**Enlarging the Teletext display**

Press A/B/ENLARGE.

Each time you press A/B/ENLARGE, the Teletext display changes as follows:

**Waiting for a Teletext page while watching a TV program (TEXT CLEAR)**

- 1 Key in the page number of the Teletext that you want to refer, then press TEXT CLR.
- 2 When the page number is displayed on the screen, press TEXT to switch the Teletext on.

**Additional Information****Troubleshooting**

**Good picture  
Noisy sound**



→ Check the TV SYSTEM setting.

**No picture  
No sound**



→ Press POWER.  
→ Check the antenna connection.  
→ Check the VCR connections.  
→ Check the power cord connection.  
→ Check the standby mode.

**Good picture  
No sound**



→ Press VOLUME +  
→ Press MUTING.

**No color**



→ Adjust the COLOR level in the on-screen display.  
→ Check the COLOR SYSTEM setting.

**TV cabinet creaks**

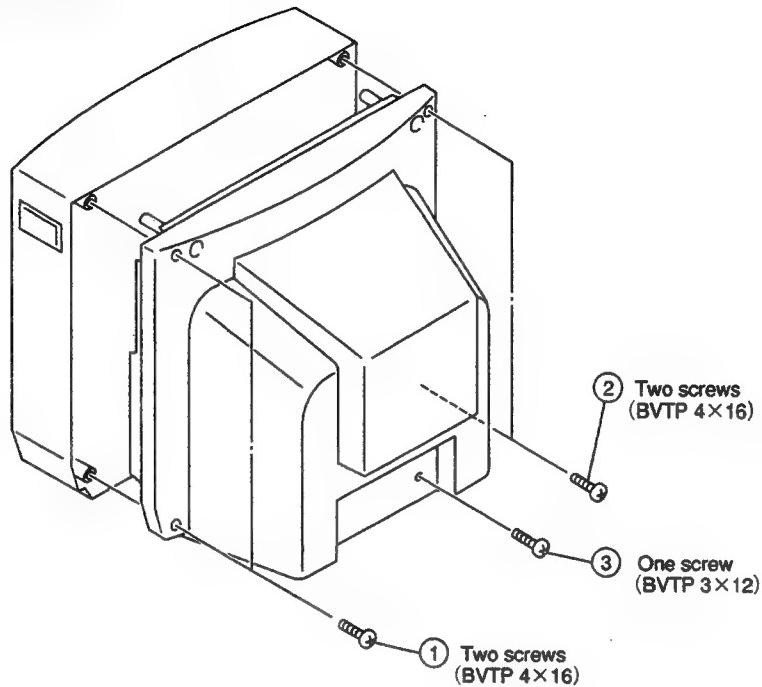
→ Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

**Note on the remote commander**

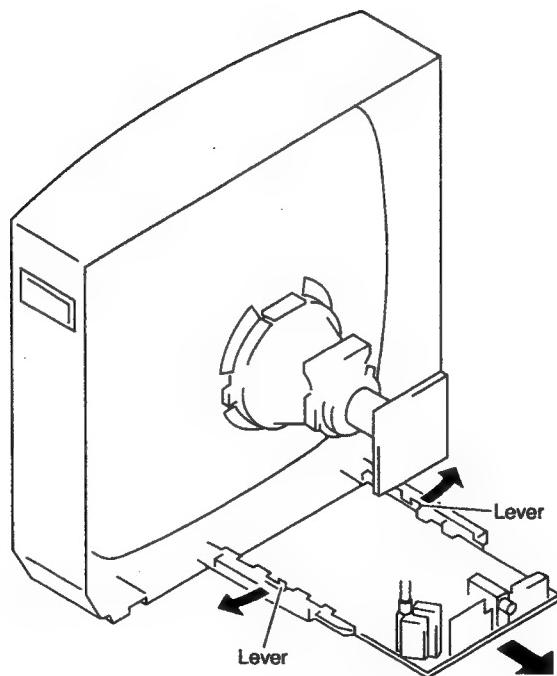
- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

## SECTION 2 DISASSEMBLY

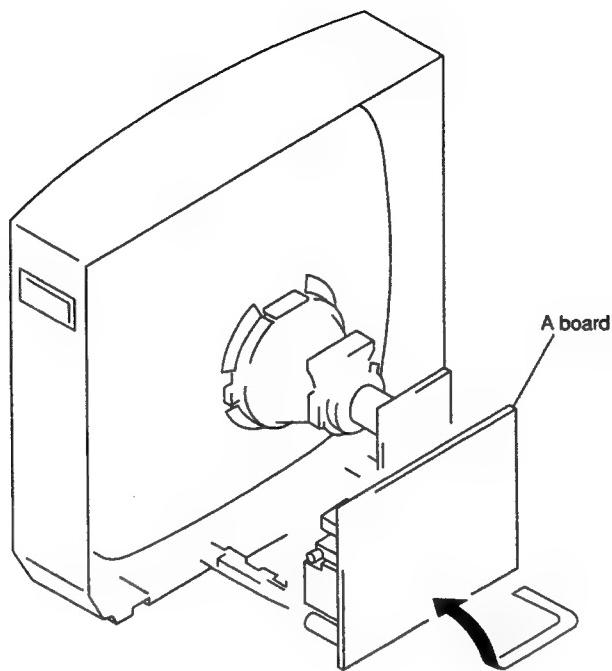
### -1. REAR COVER REMOVAL



### --2. A BOARD REMOVAL



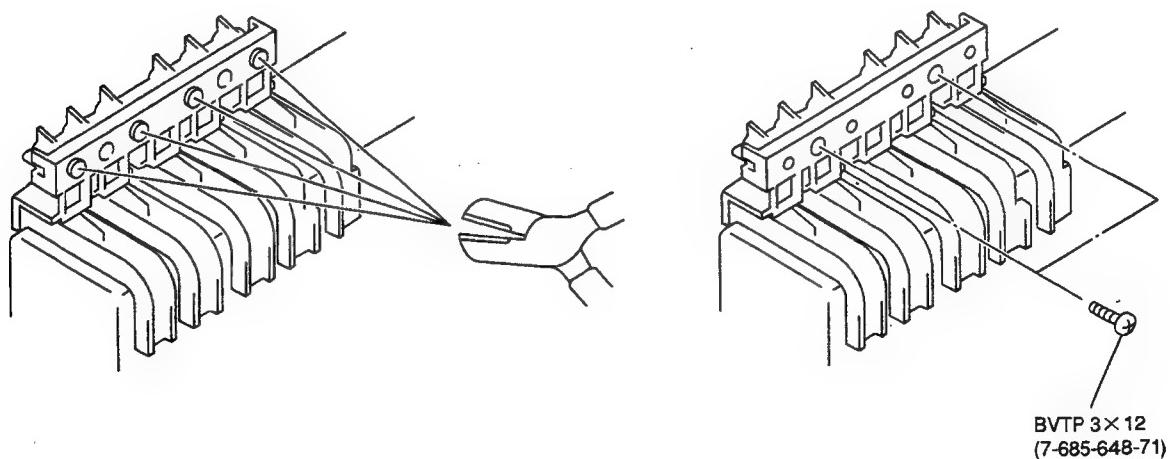
**2-3. SERVICE POSITION**



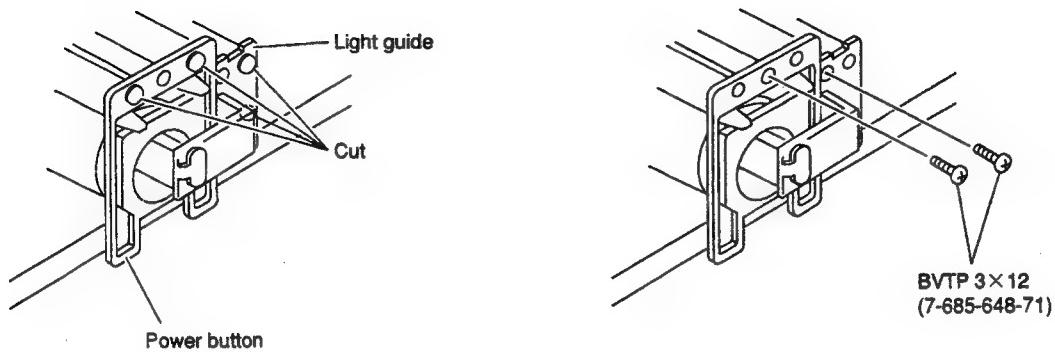
**2-4. REPLACEMENT OF PARTS**

For replacement of the Multi Button, Power Button and Light Guide, cut the welded portions from them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

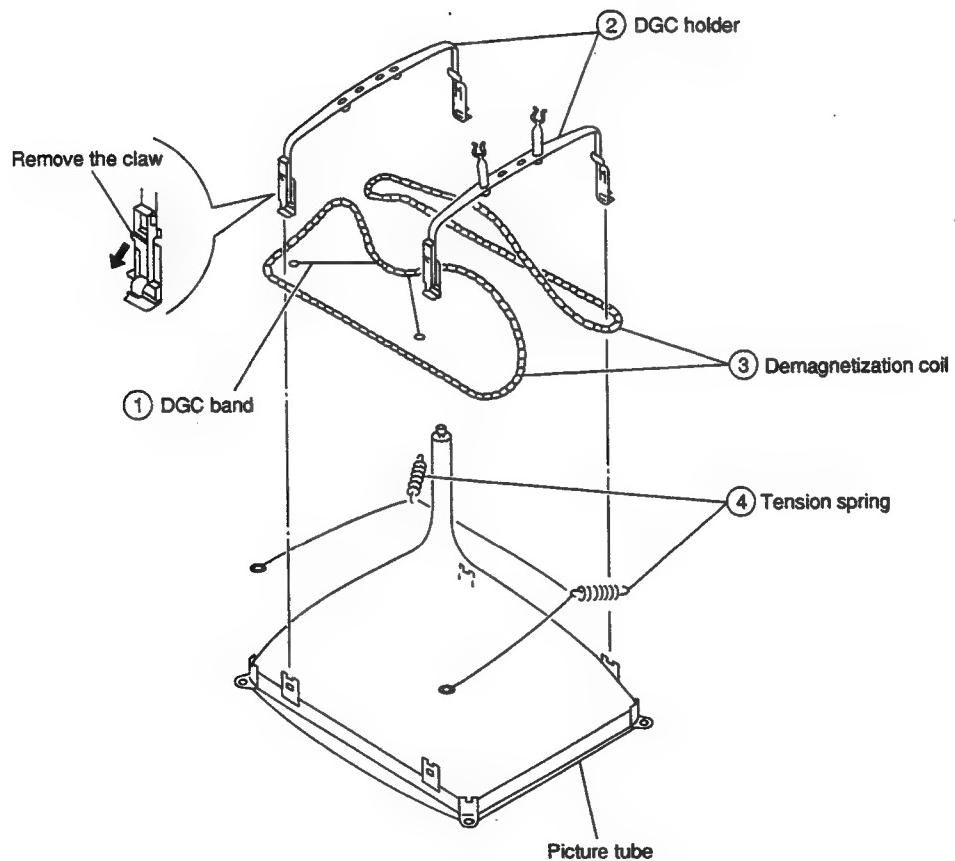
**2-4-1. REPLACEMENT OF MULTI BUTTON**



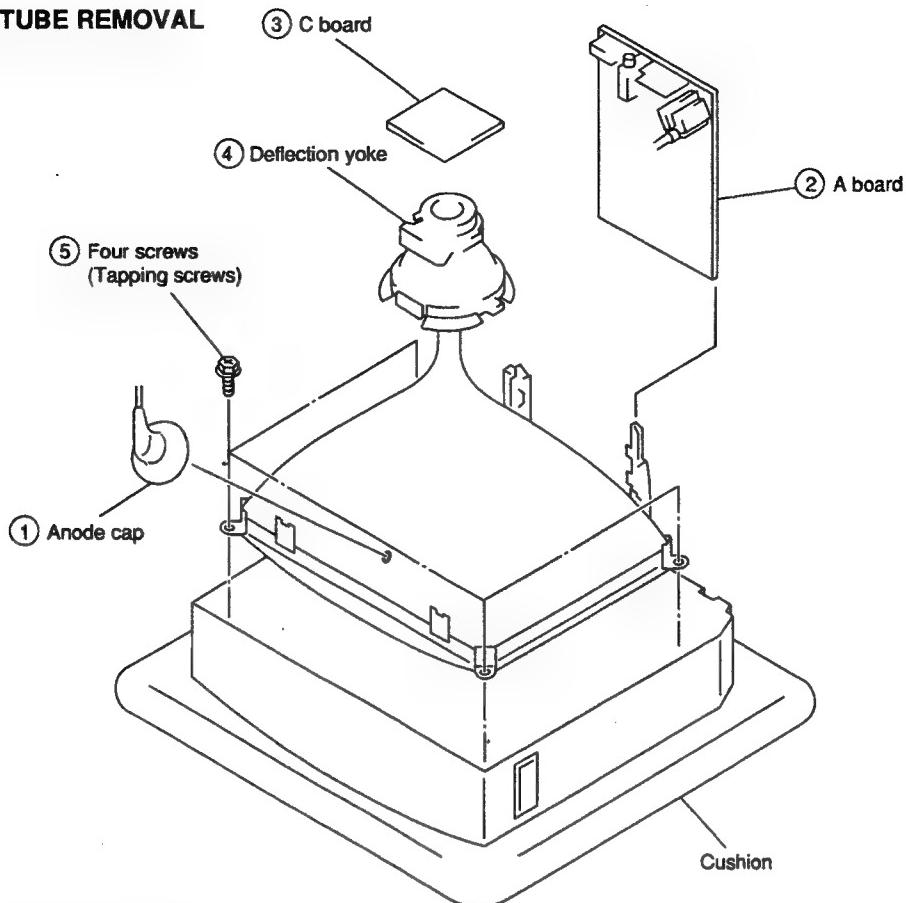
**4-2. REPLACEMENT OF LIGHT GUIDE, POWER BUTTON**



**2-5. DEMAGNETIZATION COIL REMOVAL**



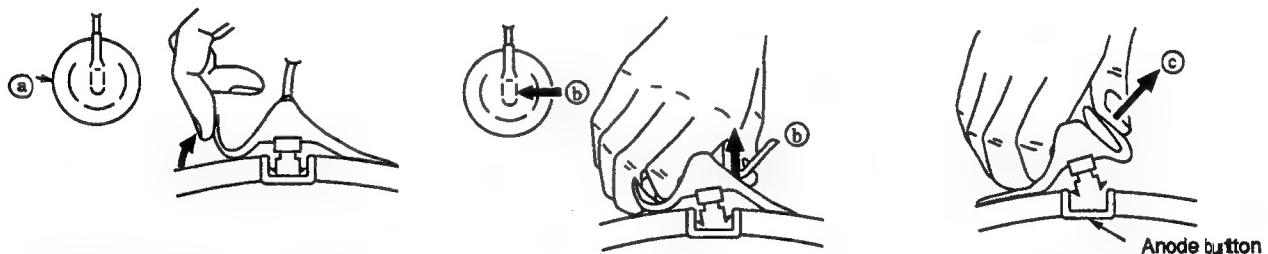
**2-6. PICTURE TUBE REMOVAL**



• **REMOVAL OF ANODE-CAP**

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

• **REMOVING PROCEDURES**



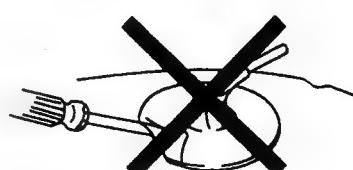
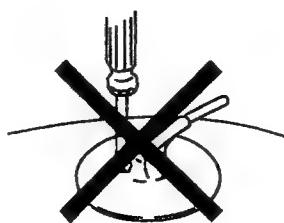
① Turn up one side of the rubber cap in the direction indicated by the arrow ③.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤.

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⑥.

• **HOW TO HANDLE AN ANODE-CAP**

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control .....	normal
BRIGHTNESS control.....	normal

#### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

#### 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
Contrast      }      normal  
Brightness      }
2. Set the pattern generator raster signal to green.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.  
If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

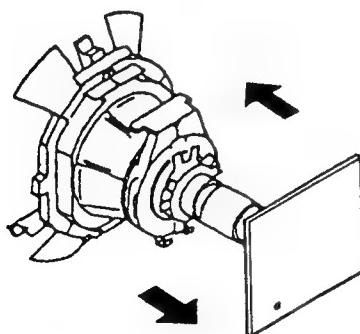


Fig. 3-1

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Purity control

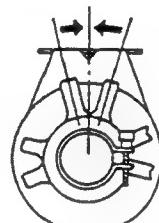


Fig. 3-2

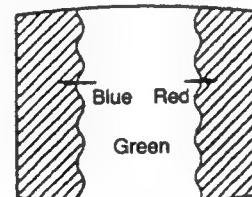


Fig. 3-3

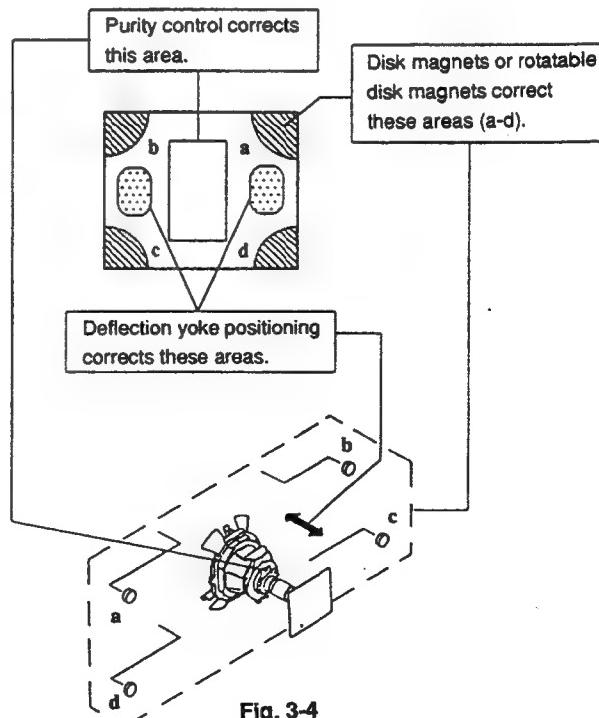


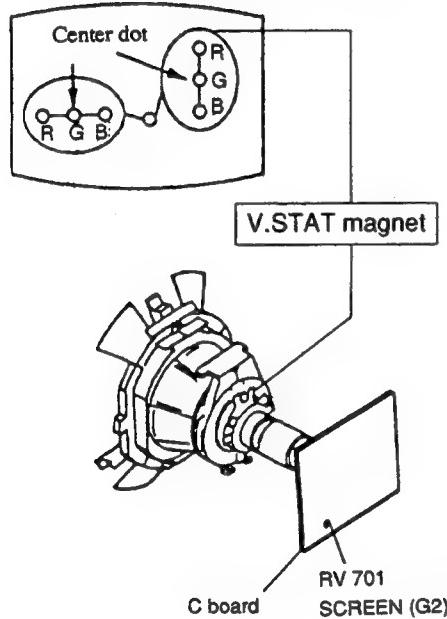
Fig. 3-4

### 3-2. CONVERGENCE

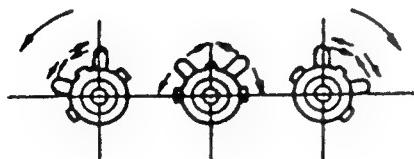
#### Preparations :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

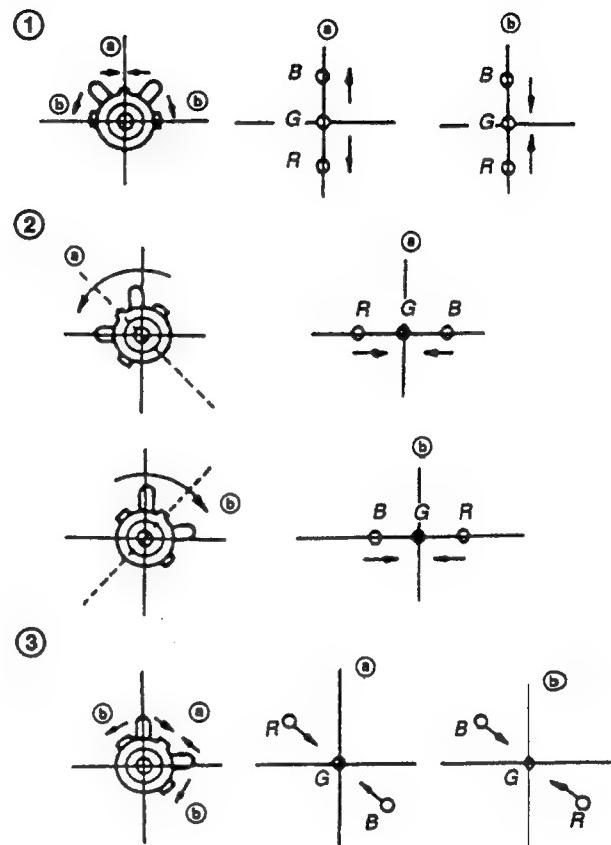
#### (1) Horizontal and Vertical Static Convergence



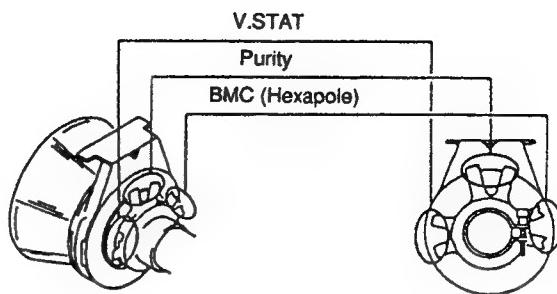
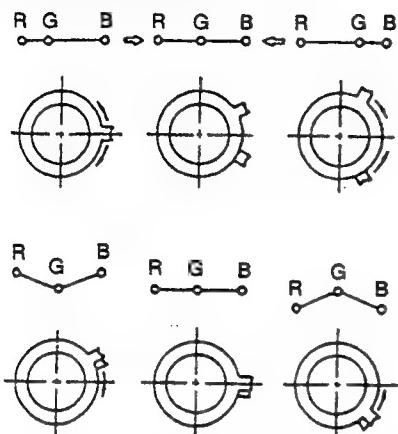
1. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
  2. (Moving horizontally), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



3. If the V.STAT magnet is moved in the direction of the ④ and ⑤ arrows, the red, green, and blue points move as shown below.



**Operation of BMC (Hexapole) Magnet.**

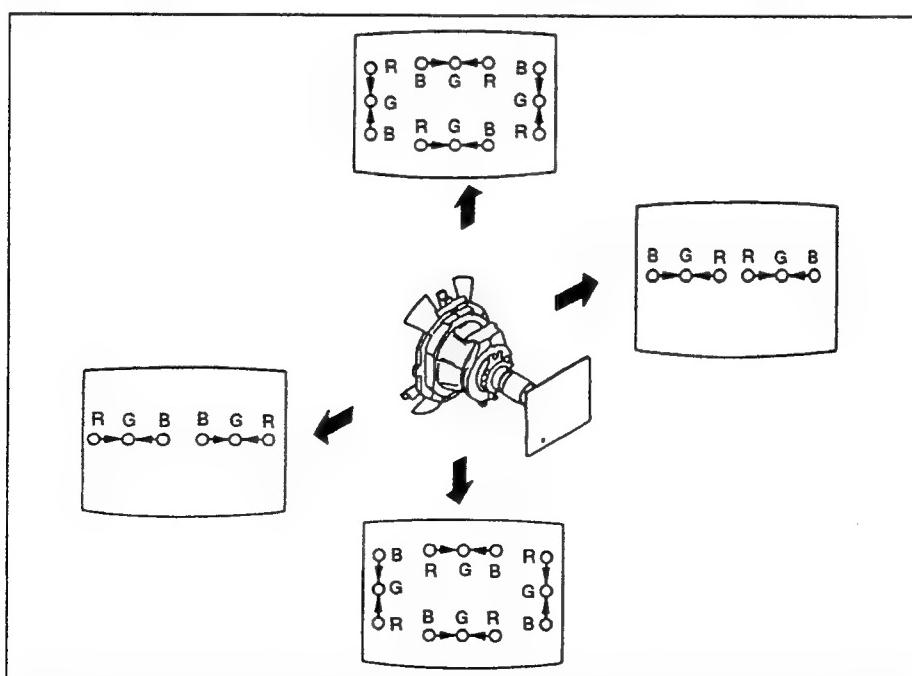


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the V.STAT magnet to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

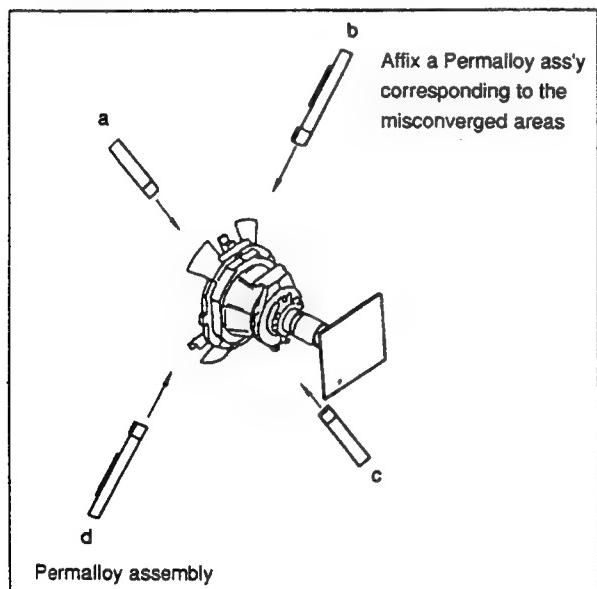
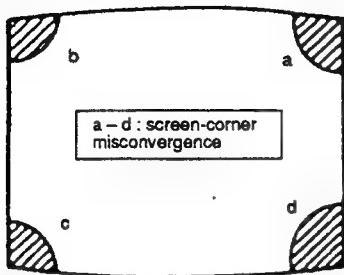
**(d) Dynamic Convergence Adjustment**

**Preparations :**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- 1. Slightly loosen the deflection yoke screws.
- 2. Remove the deflection yoke spacer.
- 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
- 4. Tighten the deflection yoke screws.
- 5. Install the deflection yoke spacer.

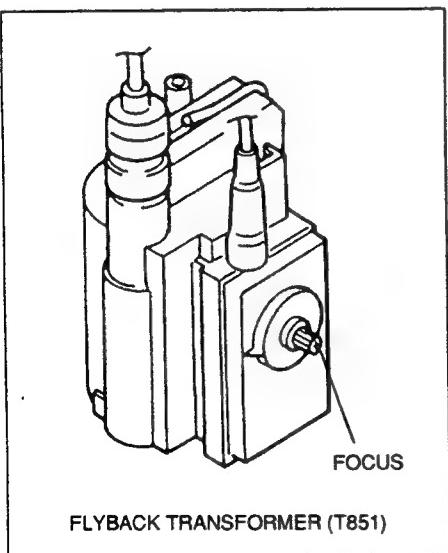


(3) Screen-corner Convergence



**3-3. FOCUS ADJUSTMENT**

Adjust FOCUS control on the flyback transformer for a best focus.



**a. AN ITEM OF ADJUSTMENT**

Item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

**b. METHOD OF CANCELLATION FROM SERVICE MODE**

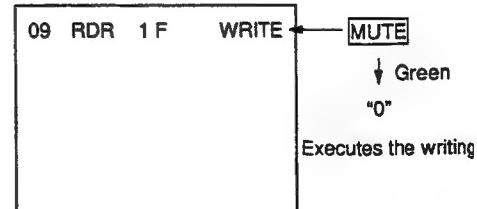
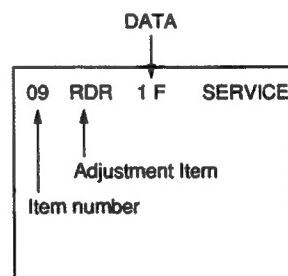
Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

**c. METHOD OF WRITE FOR MEMORY**

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTE** button indicate WRITE (Green) on screen.
- 4) Press **0** button to write into memory.

**d. MEMORY WRITE CONFIRMATION METHOD**

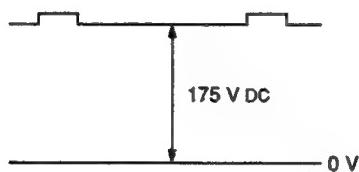
- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



**4. G2 (SCREEN) AND WHITE BALANCE  
ADJUSTMENTS**

**1. G2 (SCREEN) ADJUSTMENT (RV701)**

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G, and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



**2. WHITE BALANCE ADJUSTMENTS**

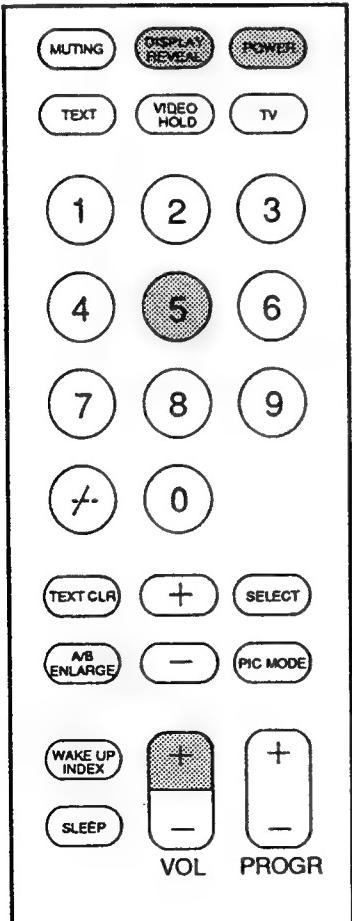
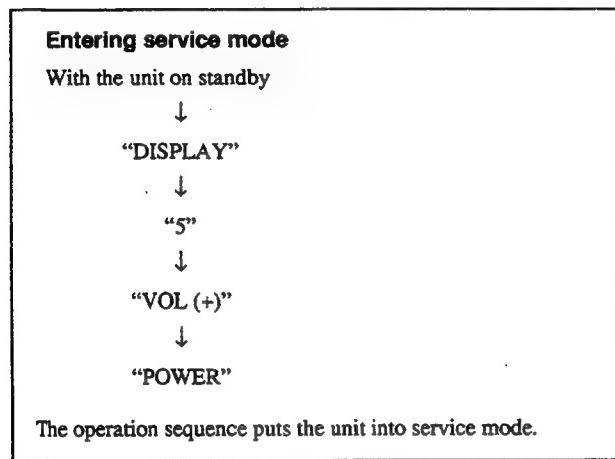
- 1) Set the Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with [1] and [4], and then set the level to 25 with [3] and [6].  
Select GDR(0A) and BDR(0B) with [1] and [4] and adjust the level with [3] and [6] for the best white balance.
- 6) Write into the memory by pressing [MUTE] → then [0].

## SECTION 4

### CIRCUIT ADJUSTMENTS

#### 4-1. ADJUSTMENTS WITH COMMANDER

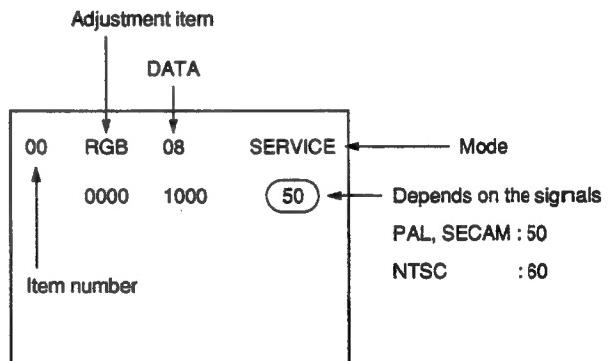
Service adjustments are made with the RM-870 that comes with this unit.



"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTING"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"5", "0"	Service data initialization (Besure not to use usually.)
"2", "0"	Write 50Hz adjustment data to 60Hz, or viceversa.

The screen display is :



"1", "4"	Select the adjustment item.
"3", "6"	Raise/lower the data.
"MUTING"	Writes
"0"	Executes the writing.

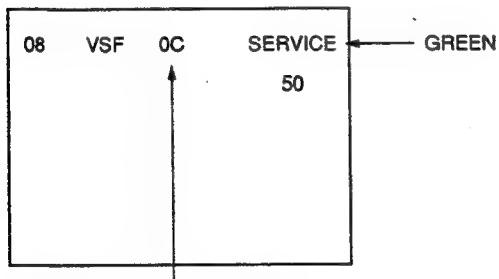
## 4-2. ADJUSTMENT METHOD

### Item Number 08

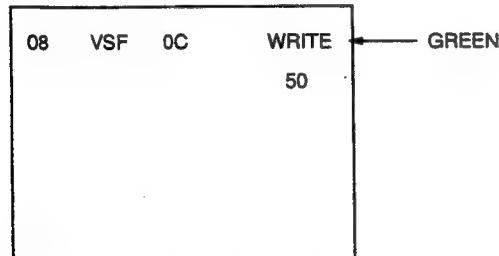
This explanation uses V-SHIFT as an example.

1. Select 08 V-SHIFT with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum state. (The standard is for OF PAL reception.)
4. Write with the MUTE button.
5. Execute the writing with the "0" button. (The WRITE display.)

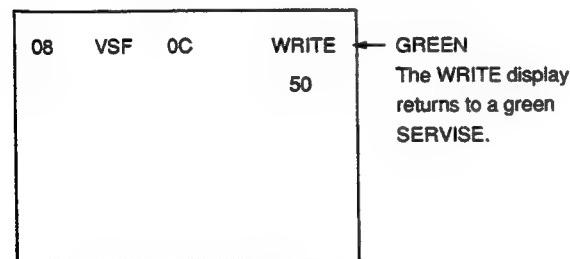
Use the same method for Items Number 00-40. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".



Adjusted with "3" and "6" buttons



Written with "MUTE"



Write executed with "0"

# KV-G25M1/G25M11

RM-870

**Adjustment Item Table**

Item number	Adjustment Item	Data range	Initial data	Standard data	Note	Device
00	HSF	00~3F	24	50:21	60:26	H SHIFT (TDA8366)
01	HSZ	00~3F	23	50:27	60:28	H SIZE (TDA8366)
02	PAP	00~3F	21	50:25	60:25	PIN AMPLITUDE (TDA8366)
03	CNP	00~3F	29	50:2D	60:2F	CORNER PIN (TDA8366)
04	TLT	00~3F	20	50:24	60:20	TILT (TDA8366)
05	VSL	00~3F	20	50:21	60:21	V SLOPE (TDA8366)
06	VAP	00~3F	1D	50:3E	60:3F	V AMPLITUDE (TDA8366)
07	SCR	00~3F	20	50:29	60:29	S CORRECTION (TDA8366)
08	VSF	00~3F	20	50:39	60:3A	V SHIFT (TDA8366)
09	RDR	00~3F	25	25 (Fix)		WHITE POINT R (TDA8366)
0A	GDR	00~3F	20	20		WHITE POINT G (TDA8366)
0B	BDR	00~3F	20	20		WHITE POINT B (TDA8366)
0C	YDL	00~0F	00	00		Y DELAY ADJUSTMENT (TDA8366)
0D	FO	00~02	00	TV:00	VIDEO:00	PHI-1TIME CONSTANT (TDA8366)
0E	AGC	00~3F	06	TV:06	VIDEO:06	AGC TAKE OVER (TDA8366)
0F	VSW	00~01	01	TV:00	VIDEO:01	VIDEO MUTE (TDA8366)
10	FOR	00~03	00	0		FORCED FIELD FREQ. (TDA8366)
11	DL	00~01	00	0		INTERLACE (TDA8366)
12	POC	00~01	00	0		SYNCHRONISATION (TDA8366)
13	NCI	00~01	00	50:00	60:00	V DIVIDER MODE (TDA8366)
14	VID	00~01	00	50:00	60:00	VIDEO IDENT MODE (TDA8366)
15	HCO	00~01	00	50:00	60:00	EHT TRACKING MODE (TDA8366)
16	EVG	00~01	00	50:00	60:00	ENABLE V GUARD (TDA8366)
17	SBL	00~01	00	50:00	60:00	SERVICE BLANKING (TDA8366)
18	PRD	00~01	00	50:00	60:00	OVER-VOLTAGE INPUT (TDA8366)
19	EXP	00~03	00	00		V DEFLECTION MODE (TDA8366)
1A	SFM	00~01	01	01		H FREQ. DURING SWON (TDA8366)
1B	PHL	00~01	00	00		COLOR X-TAL PLL (TDA8366)
1C	COR	00~01	00	00		NOISE CORING PEAK (TDA8366)
1D	PMX	00~3F	20	20		PICTURE MAX DATA (TDA8366)
1E	SBR	00~7F	4B	53		SUB-BRIGHTNESS (TDA8366)
1F	SHU	00~0F	07	07		SUB-HUE (TDA8366)
20	SSH	00~03	01	TV:01	VIDEO:03	SUB-SHARPNESS (TDA8366)
21	SCL	00~3F	3F	50:3F	60:3F	SUB-COLOR (TDA8366)
22	TXP	00~0F	09	09		Text Picture cont. (SAA5281)
23	MXP	00~0F	0B	0B		Text Mix mode Pic. (SAA5281)
24	ODL	00~FF	10	10		Power ON Delay (CXP85200)
25	OFR	00~0F	00	00		Remo. con. RGB OUT (CXP85200)
26	OFM	00~0F	00	00		Main power RGB OUT (CXP85200)
27	OSH	00~3F	0A	06		OSD Position H (CXP85200)
28	MUT	00~01	01	00		No Sync. Mute (CXP85200)
29	ABL	00~01	01	01		Bright ABL (CXP85200)
2A	OP0	00~FF	40	2B		Option 0 (CXP85200)
2B	OP1	00~FF	07	07		Option 1 (CXP85200)

\* 50 ... 50Hz data 60 ... 60Hz data

\* Standard data listed on the Adjustment Item Table are reference values, therefore differ per model.

**No 2A OP0 \* Input data are different according to models.**

-	AV Input		-	-	-	-	Saudi
0	0	1	0	0	0	0	0

**No 2B OP1**

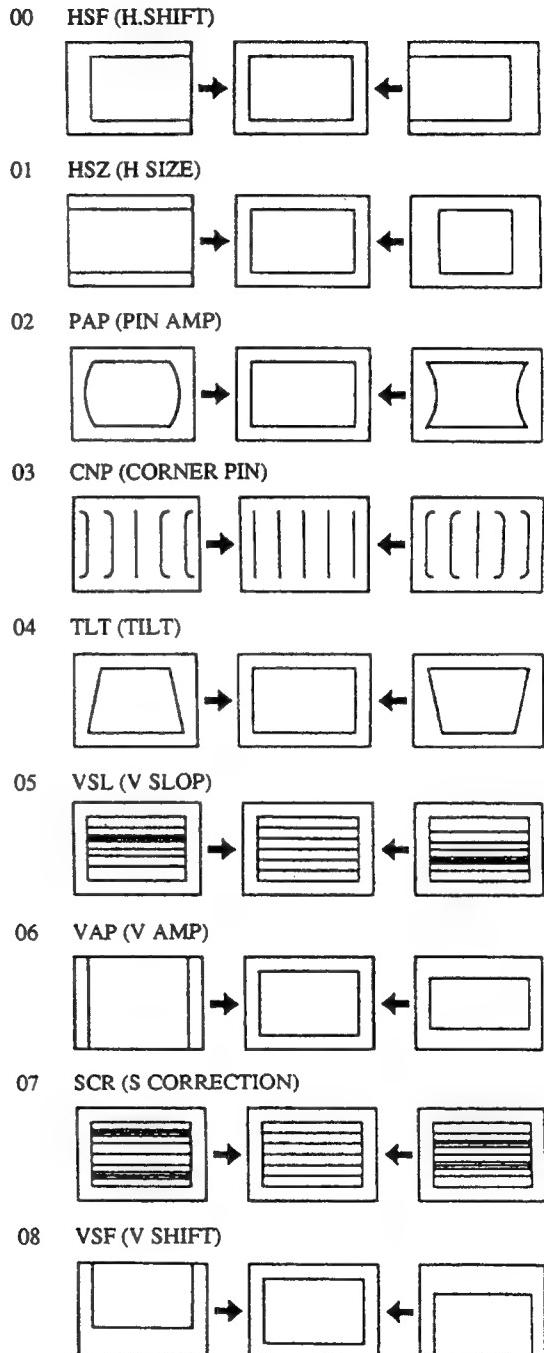
-	-	-	TV System	NTSC	SECAM	Chin
0	0	0	0	0	1	1

#### **4-3. A BOARD, ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT**

1. Enter to Service Mode.
2. Press commander buttons "5" and "0" (Data Initialize), and "2" and "0" (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.  
In case some items are not well-adjusted, give them fine adjustment.  
Write the data per each item number (MUTE + 0).
4. Select item numbers "2A" (OP0) and "2B" (OP1) for mono, and 3F (OP0) and "40" (OP1) for STEREO, and respectively set the bit per model with command buttons "3" and "6".
5. Press commander buttons "8" and "0" (Test Normal) to return to the data that was set on the shipment from the factory.  
(= Cancel Service Mode.)

#### **4-4. PICTURE DISTORTION ADJUSTMENT**

Item Number 00 – 08

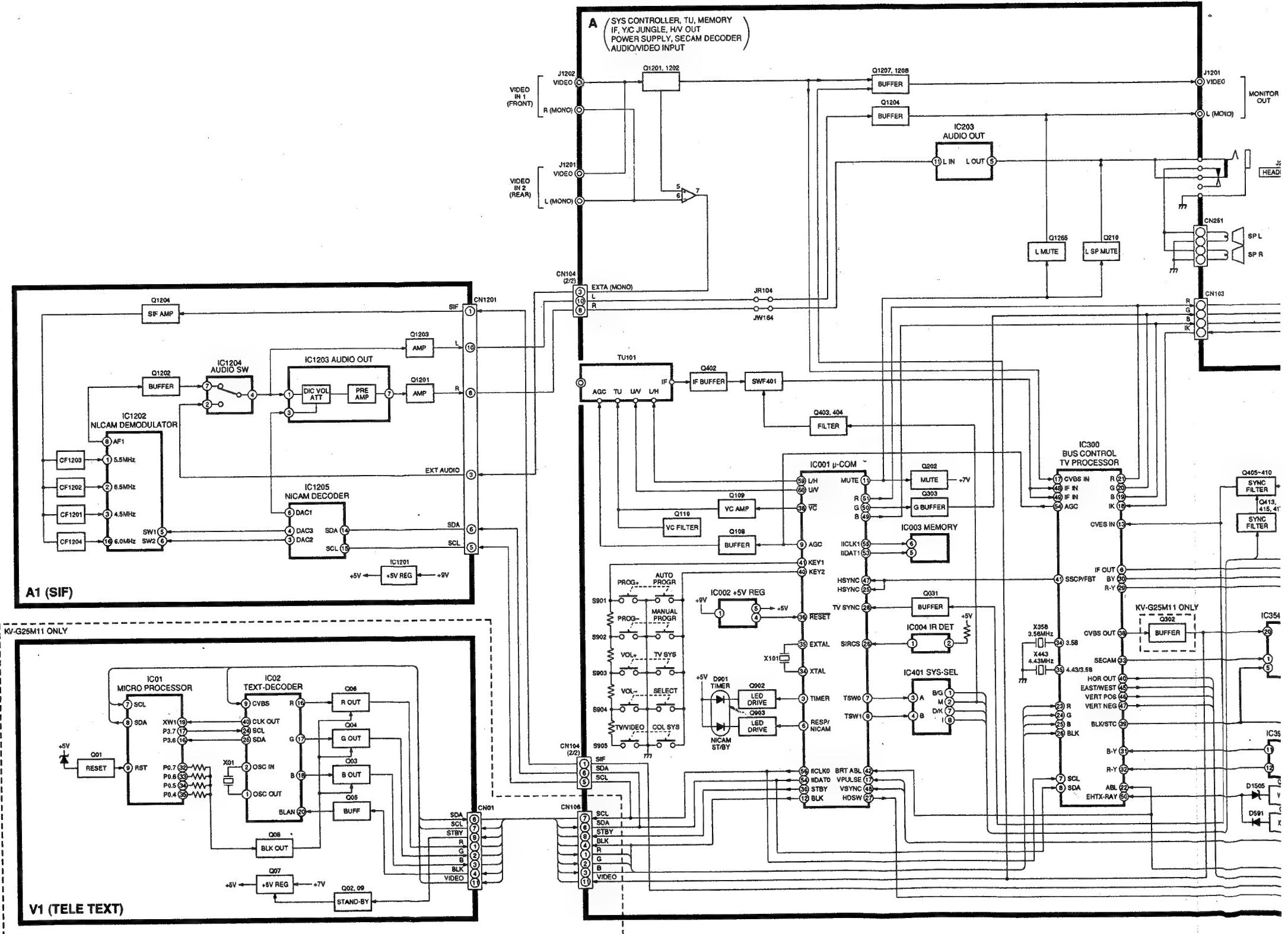


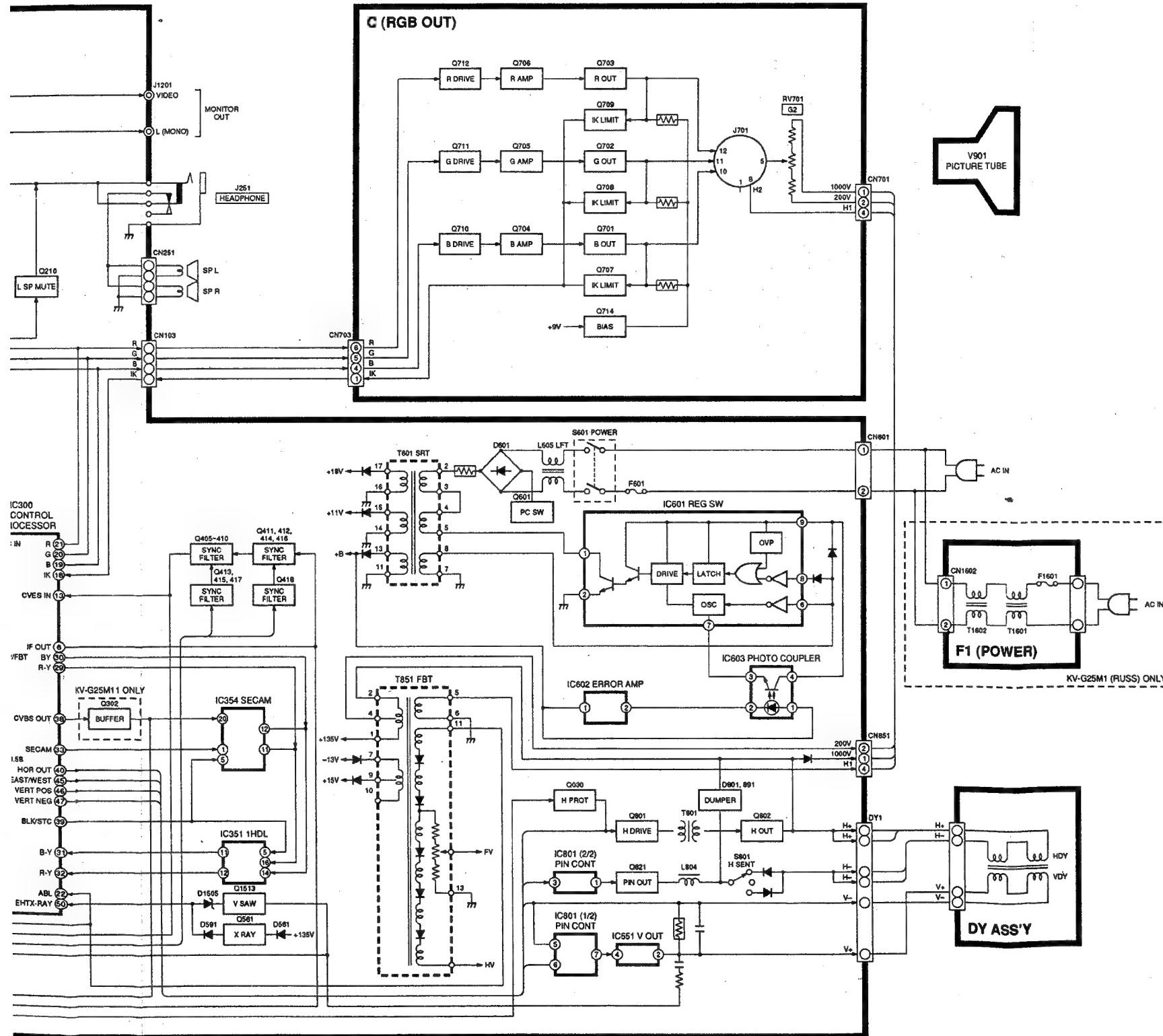
MEMO

## **SECTION 5**

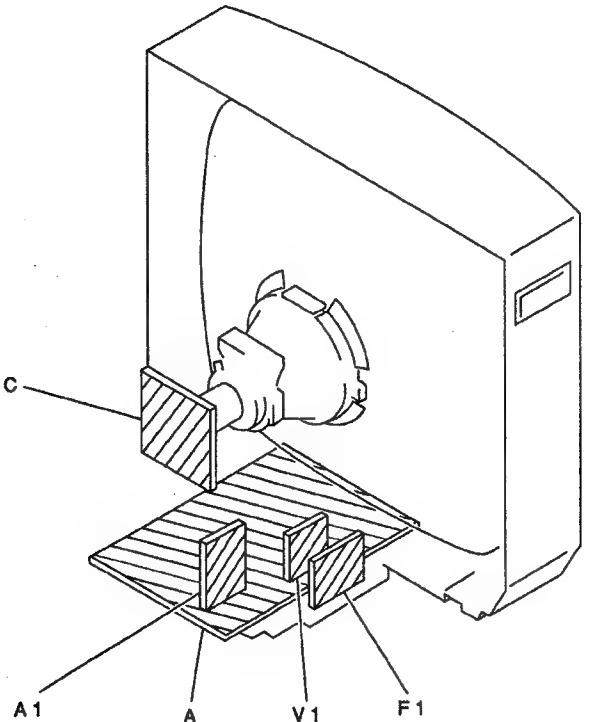
## **DIAGRAMS**

## **5-1. BLOCK DIAGRAMS**





## 5-2. CIRCUIT BOARDS LOCATION



## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

### Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.  
 $\text{k}\Omega = 100\Omega$ ,  $\text{M}\Omega = 1000\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.
- Pitch: 5 mm  
Rating electrical power 1/4W (CHIP: 1/10W)
- $\square$  : nonflammable resistor.
- $\triangle$  : internal component.
- $\boxed{\quad}$  : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.  
no mark : PAL  
( ) : SECAM  
( ) : NTSC 4.43
- Readings are taken with a 10  $\text{M}\Omega$  digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- \* : Can not be measured.
- Circled numbers are waveform reference.
- $\overline{\quad}$  : B + bus.
- $\overline{\quad}$  : B - bus.
- $\rightarrow$  : signal path.

### Reference Information

RESISTOR	: RN METAL FILM
	: RC SOLID
	: FPRD NONFRAMMABLE CARBON
	: FUSE NONFLAMMABLE FUSIBLE
	: RS NONFLAMMABLE METAL OXIDE
	: RB NONFLAMMABLE CEMENT
	: RW NONFLAMMABLE WIREWOUND
	: * ADJUSTMENT RESISTOR
COIL	: LF-8L MICRO INDUCTOR
CAPACITOR	: TA TANTALUM
	: PS STYROL
	: PP POLYPROPYLENE
	: PT MYLAR
	: MPS METALIZED POLYESTER
	: MPP METALIZED POLYPROPYLENE
	: ALB BIPOLAR
	: ALT HIGH TEMPERATURE
	: ALR HIGH RIPPLE

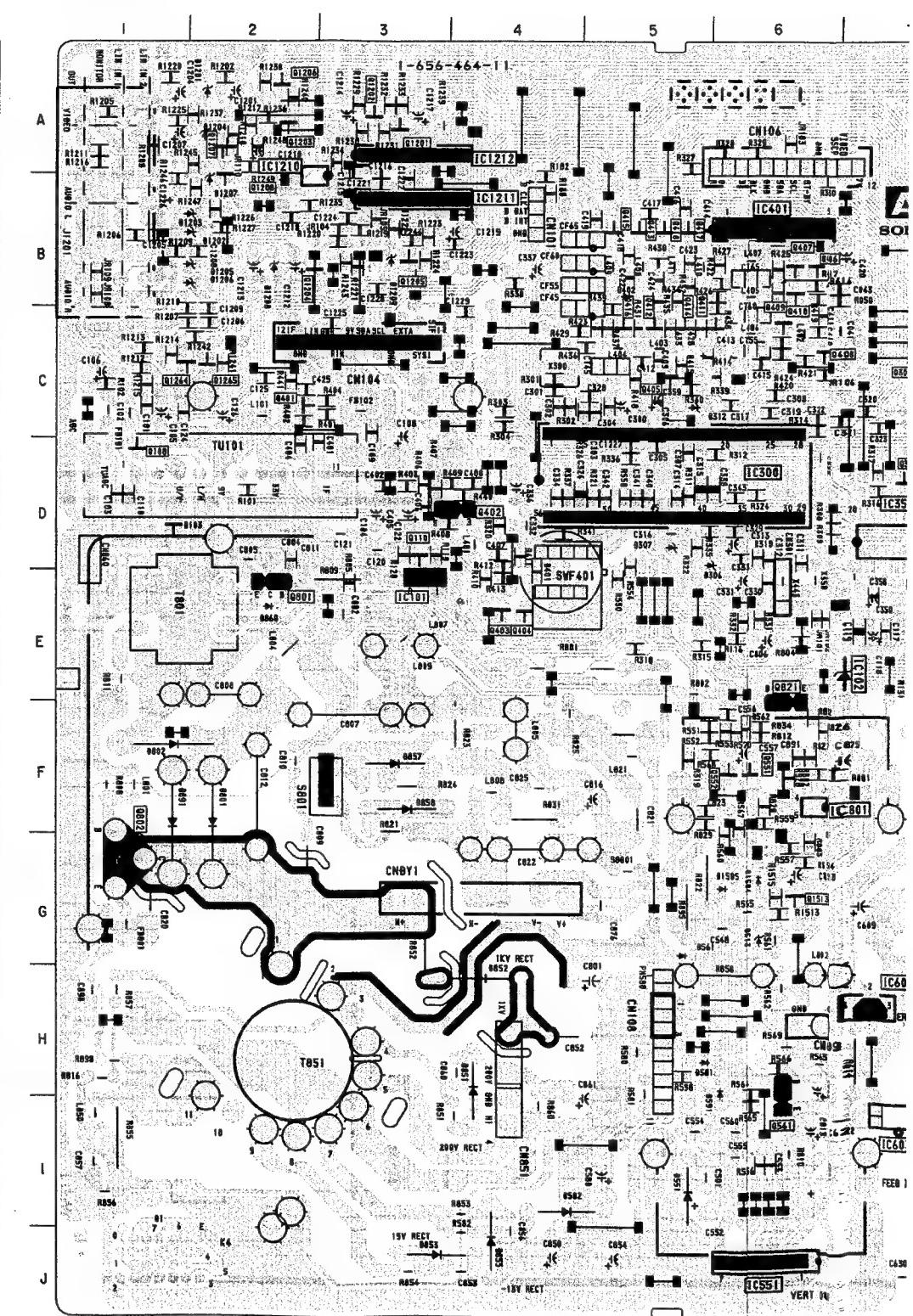
Note: The component identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.

## PRINTED WIRING BOARD

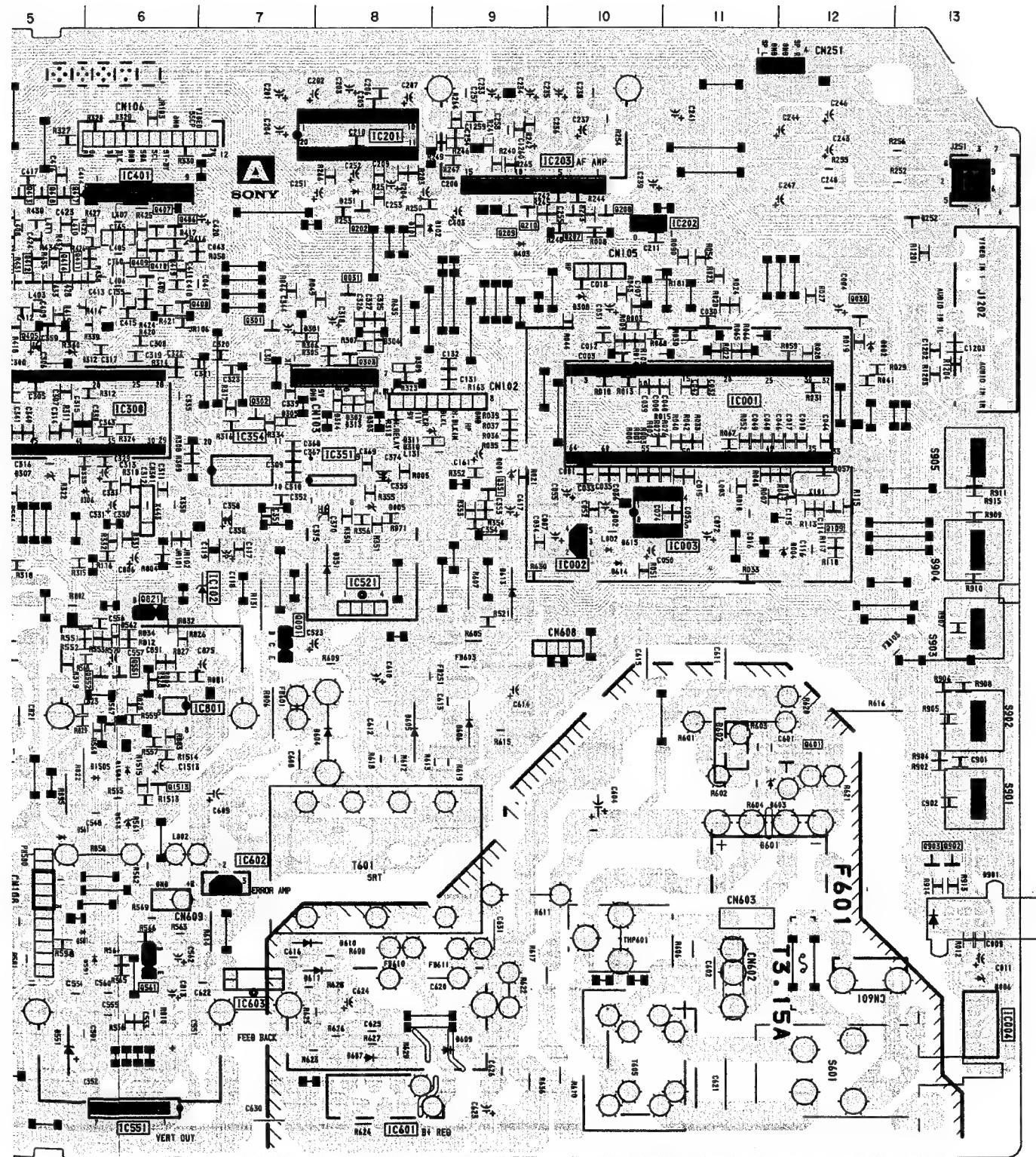
A [SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE  
H/V OUT, POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT]

### - A Board -

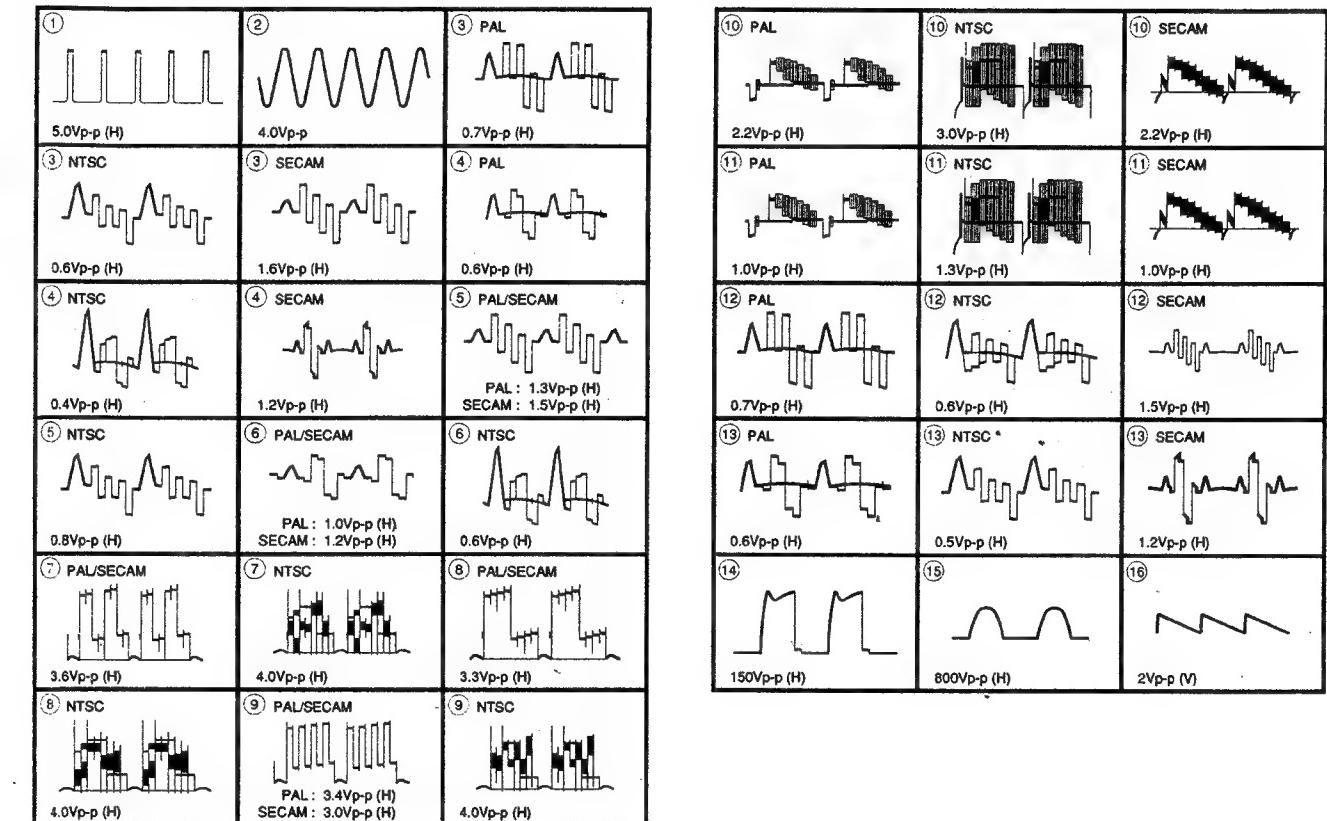
IC	Q1208 B-2 Q1265 C-2 Q1513 G-6
IC001	D-11
IC002	E-10
IC003	E-11
IC004	I-13
IC102	E-7
IC203	B-10
IC300	D-6
IC351	D-8
IC354	D-7
IC401	B-6
IC521	E-8
IC551	J-6
IC601	J-8
IC602	H-7
IC603	I-7
IC801	F-6
IC1210	A-2
<b>DIODE</b>	
D001	D-9
D002	C-12
D003	C-10
D004	E-12
D005	E-8
D101	B-8
D102	B-9
D103	D-1
D251	B-8
D252	B-13
D301	C-7
D302	D-8
D303	D-8
D304	C-8
D305	D-7
D306	D-6
D307	D-5
D308	C-10
D310	D-8
D311	D-8
D312	C-5
D313	D-8
D314	D-8
D351	E-8
D401	D-4
D402	B-5
D403	B-9
D513	G-6
D551	I-5
D561	G-5
D591	H-6
D601	G-11
D602	G-11
D603	G-11
D604	G-8
D605	G-8
D606	F-9
D607	I-8
D609	I-9
D610	H-7
D611	I-8
D801	F-2
D802	F-1
D851	H-4
D852	H-4
D853	J-3
D855	J-4
D857	F-3
D858	F-3
D860	E-2
D891	F-1
D901	H-13
D1201	A-2
D1202	B-2
D1207	B-2
D1208	B-2
D1504	G-6
D1505	G-6
D1506	G-6
D1507	G-6
<b>TRANSISTOR</b>	
Q030	C-12
Q031	C-8
Q108	D-1
Q109	E-12
Q110	D-3
Q202	B-8
Q207	B-10
Q208	B-10
Q210	B-9
Q301	C-7
Q302	D-7
Q303	C-8
Q402	D-4
Q403	E-4
Q404	E-4
Q405	C-5
Q406	B-6
Q407	B-6
Q408	C-6
Q409	C-6
Q410	B-6
Q411	C-6
Q412	C-5
Q413	B-5
Q414	C-5
Q415	B-5
Q416	C-5
Q417	B-5
Q418	B-5
Q561	I-6
Q601	G-12
Q602	D-12
Q801	E-2
Q802	G-1
Q821	E-6
Q902	H-13
Q903	H-13
Q1201	A-3
Q1202	A-3
Q1203	A-2
Q1204	B-2
Q1207	A-2



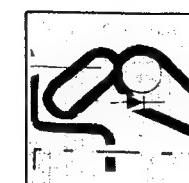
VIDEO INPUT



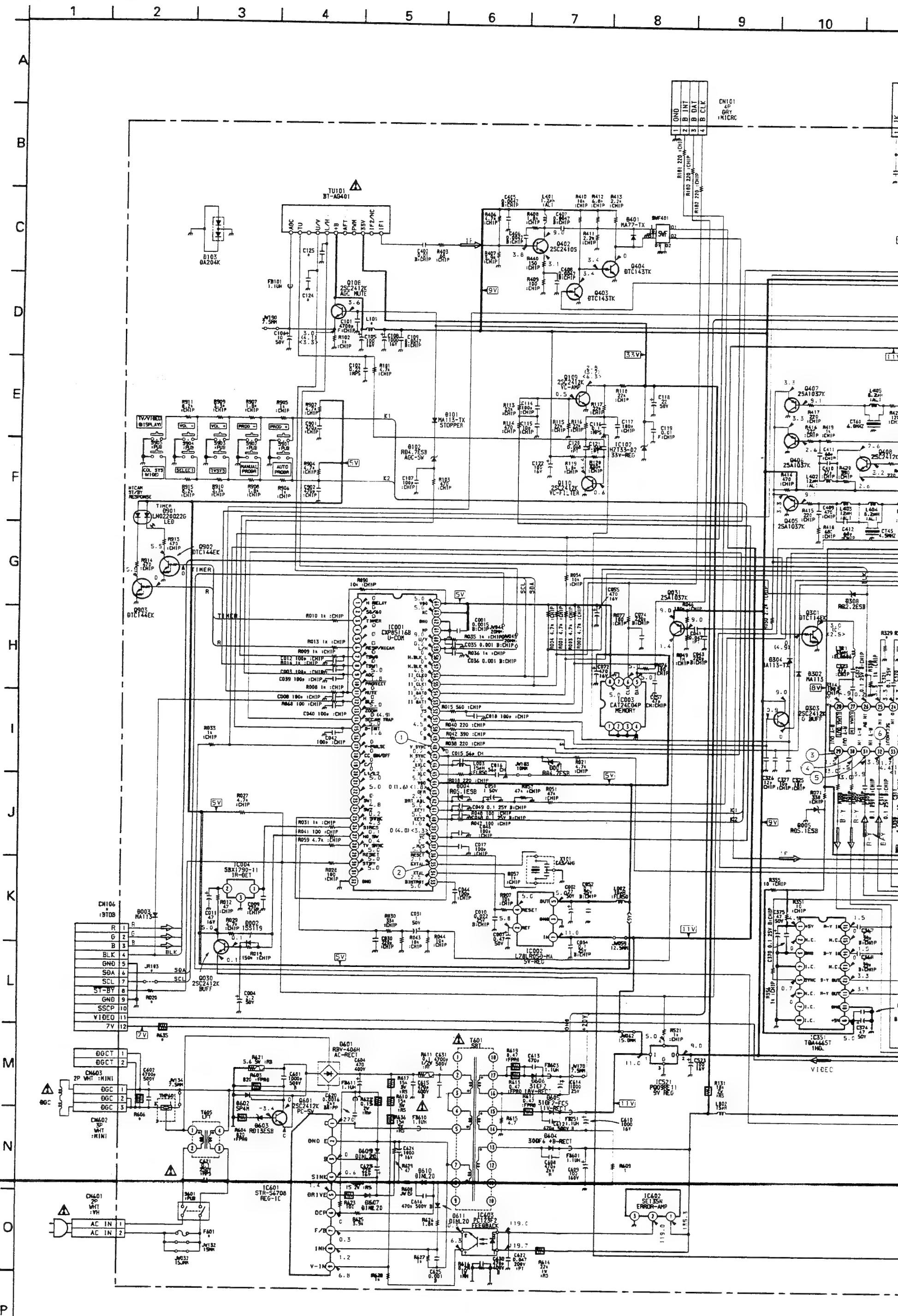
A BOARD WAVEFORMS

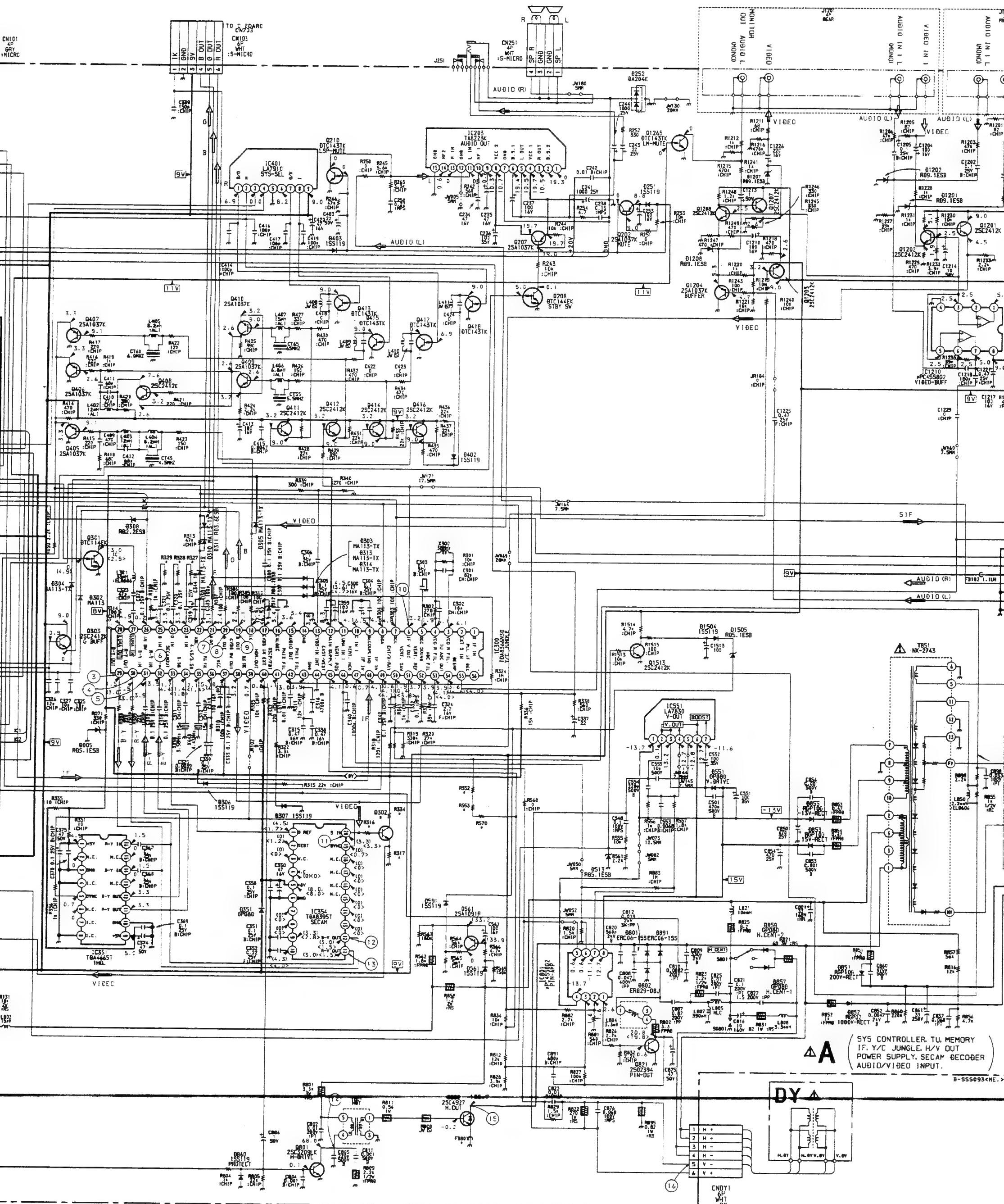


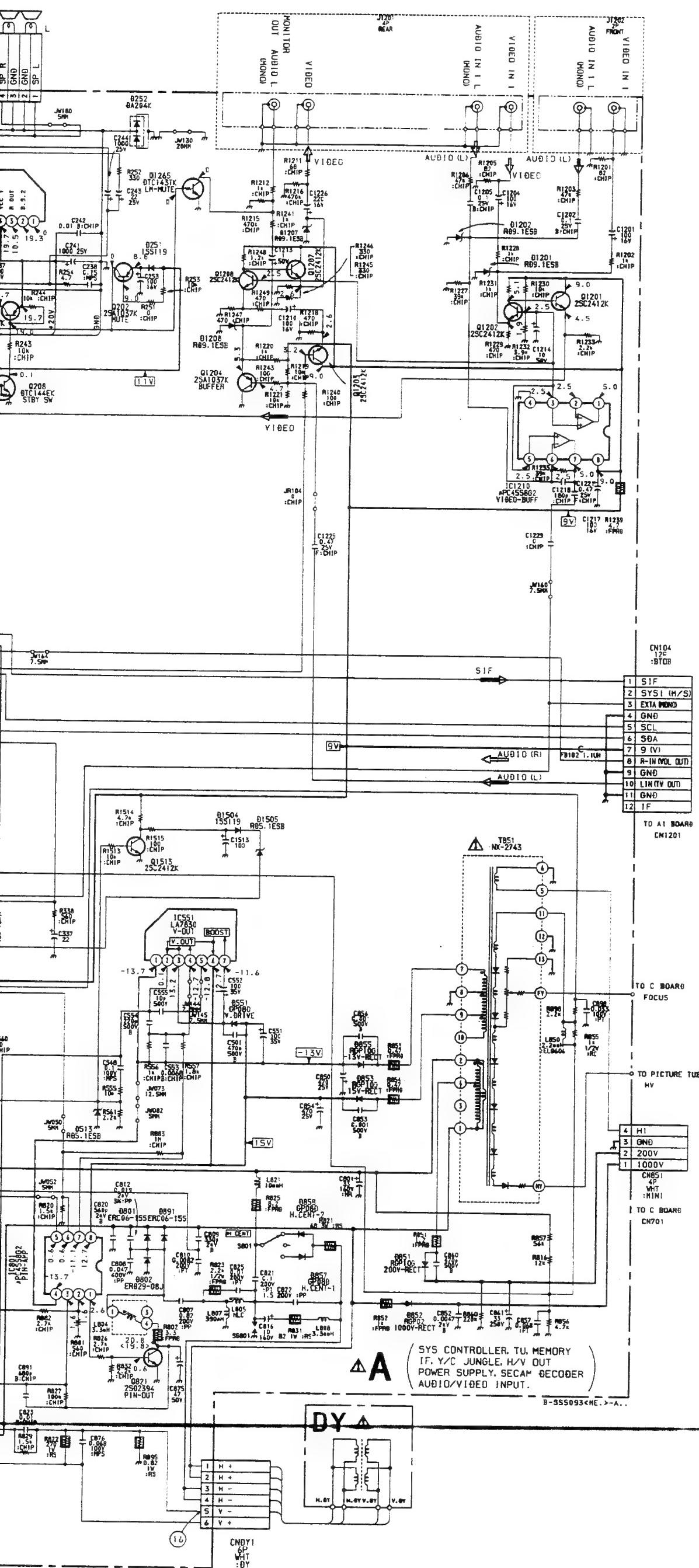
NOTE:  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



(1) Schematic Diagram of A Board



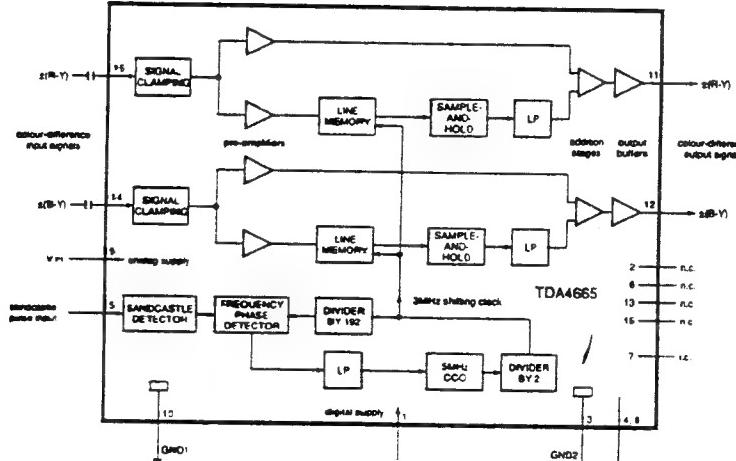




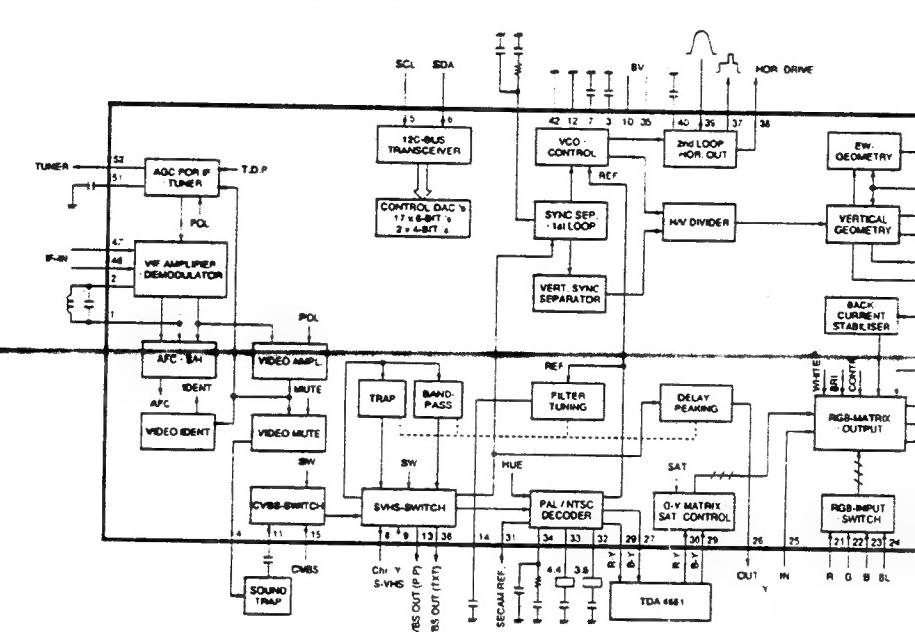
**A BOARD \* MARK LIST**

	KV-G25M1(ME)	KV-G25M1(HK)	KV-G25M1(
CN106	NOT USED	NOT USED	NOT US
CN601	TO POWER CORD	TO POWER CORD	TO F1 BOARD
F601	T3.15A	T3.15A	NOT US
FB801	1.1uH	1.1uH	1.9uH
JR103	NOT USED	NOT USED	NOT US
JW032	NOT USED	NOT USED	15MM
JW132	NOT USED	NOT USED	15MM
Q302	NOT USED	NOT USED	NOT USE
R020	NOT USED	NOT USED	NOT USE
R316	NOT USED	NOT USED	NOT USE
R317	NOT USED	NOT USED	NOT USE
R327	O : CHIP	O : CHIP	O : CHIP
R328	O : CHIP	O : CHIP	O : CHIP
R329	O : CHIP	O : CHIP	O : CHIP
R334	NOT USED	NOT USED	NOT USE
R552	NOT USED	NOT USED	220K : CHIP
R553	NOT USED	NOT USED	O : CHIP
R570	NOT USED	NOT USED	O : CHIP
R635	NOT USED	NOT USED	NOT USE

A BOARD IC351 TDA4665T

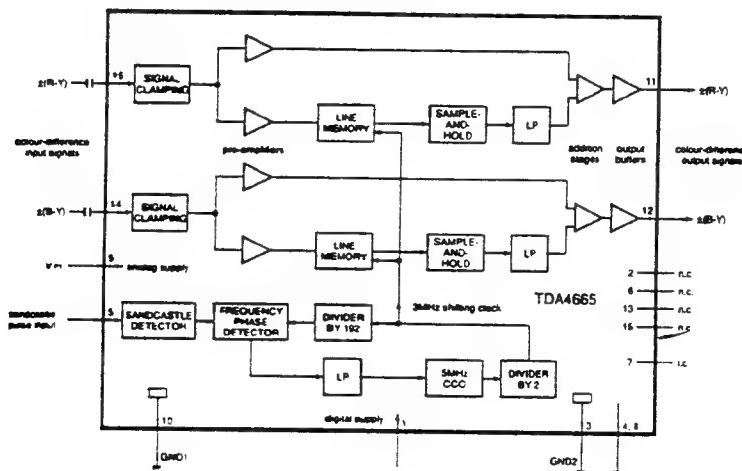
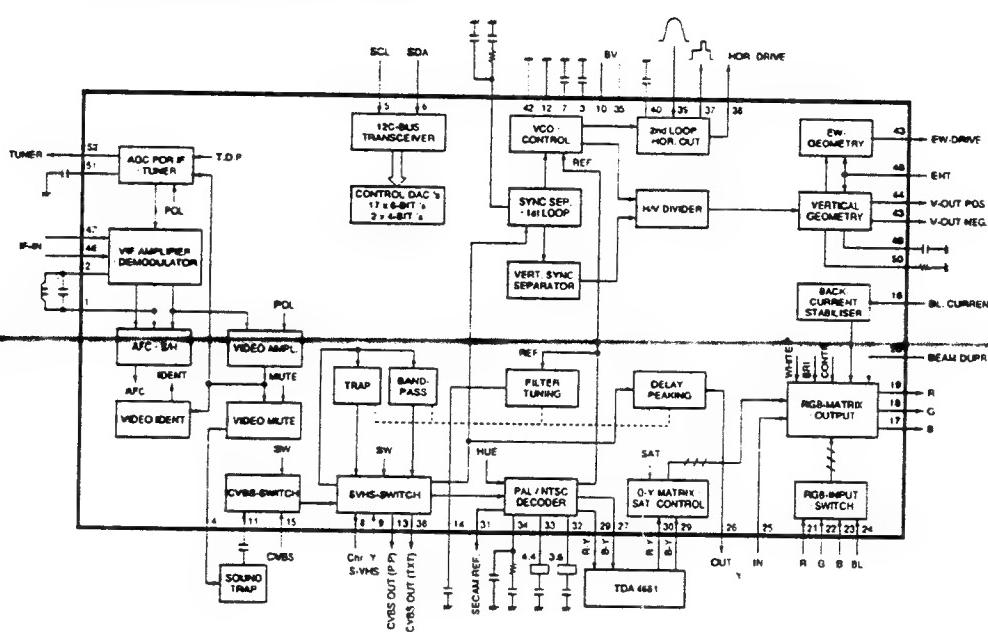


A BOARD IC300 TDA8366N3D

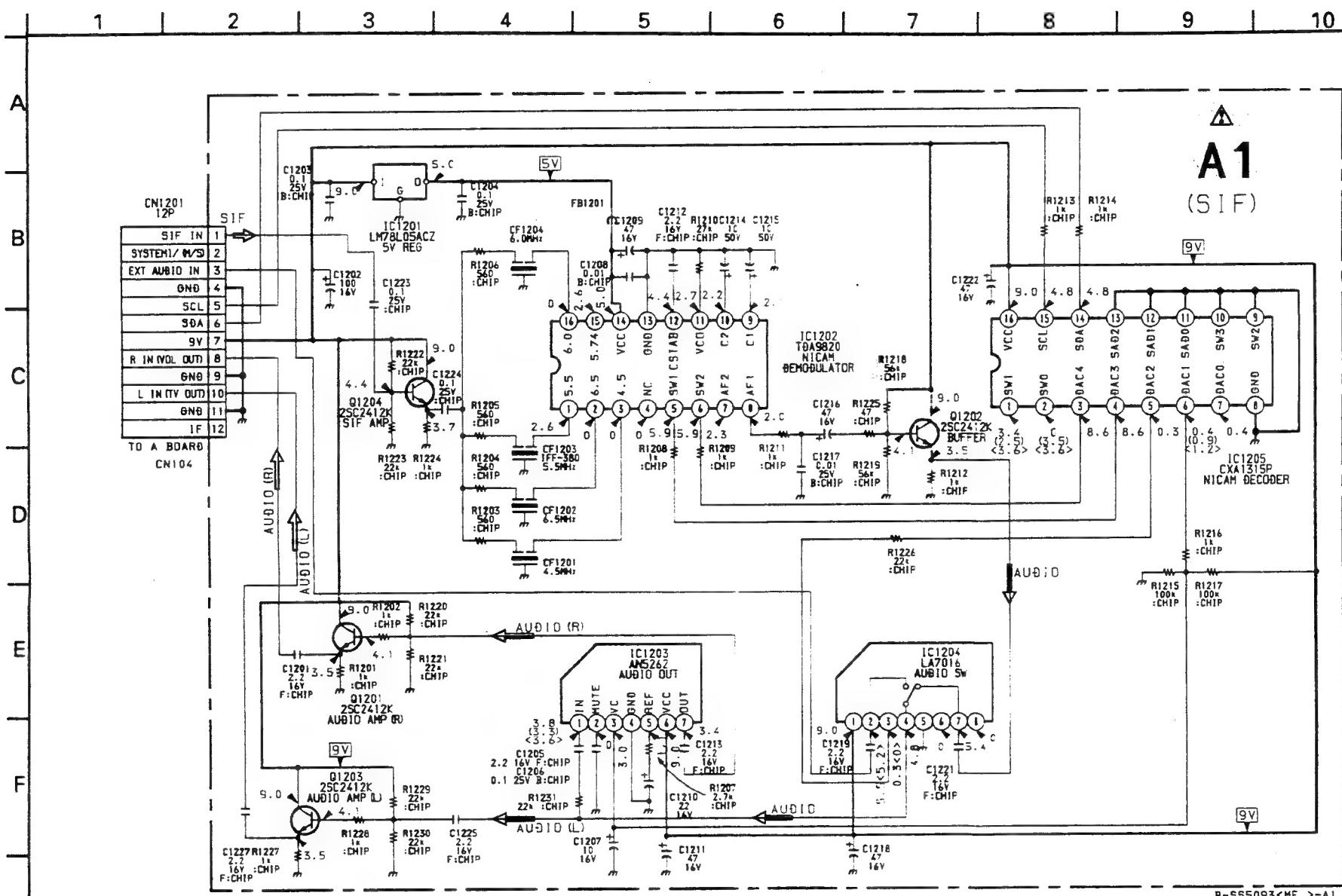


**A BOARD \* MARK LIST**

	KV-G25M1(ME)	KV-G25M1(HK)	KV-G25M1(RUSS)	KV-G25M11
CN106	NOT USED	NOT USED	NOT USED	12P : BTOB
CN601	TO POWER CORD	TO POWER CORD	TO F1 BOARD CN1602	TO POWER CORD
F601	T3.15A	T3.15A	NOT USED	T3.15A
FB801	1.1uH	1.1uH	1.9uH	1.1uH
JR103	NOT USED	NOT USED	NOT USED	0 : CHIP
JW032	NOT USED	NOT USED	15MM	NOT USED
JW132	NOT USED	NOT USED	15MM	NOT USED
Q302	NOT USED	NOT USED	NOT USED	2SC2412K
R020	NOT USED	NOT USED	NOT USED	100 : CHIP
R316	NOT USED	NOT USED	NOT USED	4.7K : CHIP
R317	NOT USED	NOT USED	NOT USED	1K : CHIP
R327	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R328	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R329	C : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R334	NOT USED	NOT USED	NOT USED	470 : CHIP
R552	NOT USED	NOT USED	220K : CHIP	220K : CHIP
R553	NOT USED	NOT USED	0 : CHIP	0 : CHIP
R570	NOT USED	NOT USED	0 : CHIP	0 : CHIP
R635	NOT USED	NOT USED	NOT USED	22 2W :RS

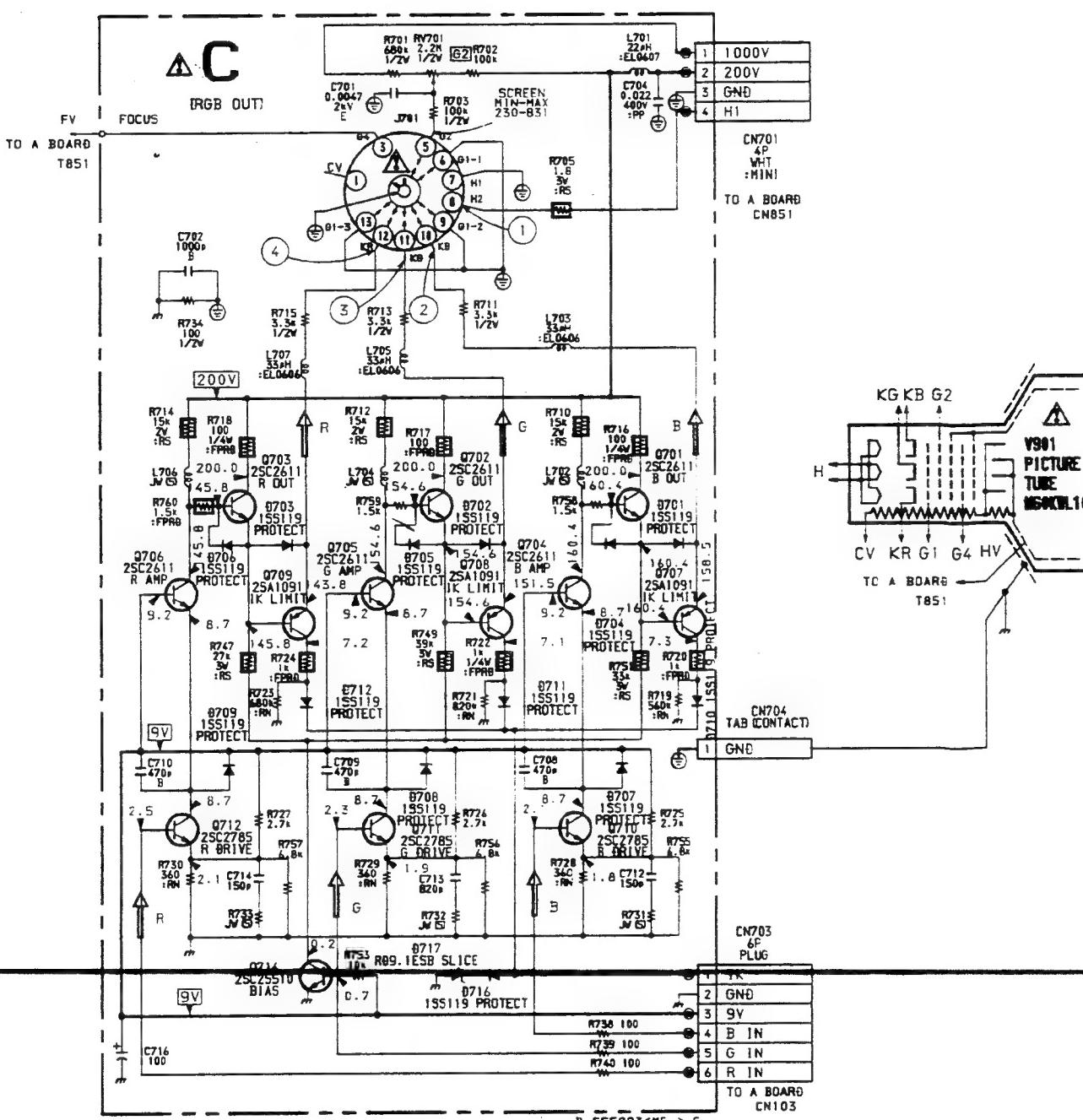
**A BOARD IC351 TDA4665T****A BOARD IC300 TDA8366N3D**

## **(2) Schematic Diagrams of A1, C, F1 and V1 Boards**

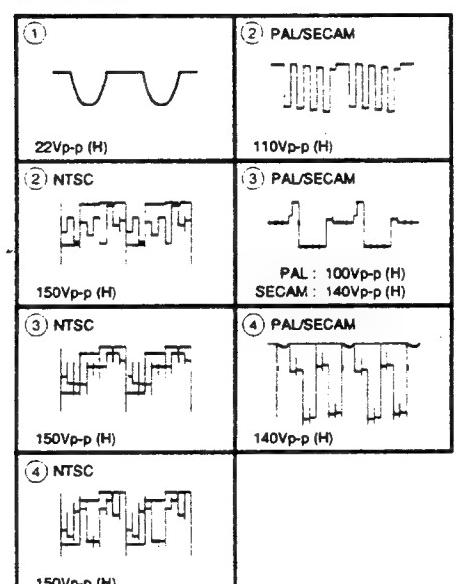


B-555093<ME.>-A1

## C BOARD WAVEFORMS



~~B-555093~~ MF 2-5

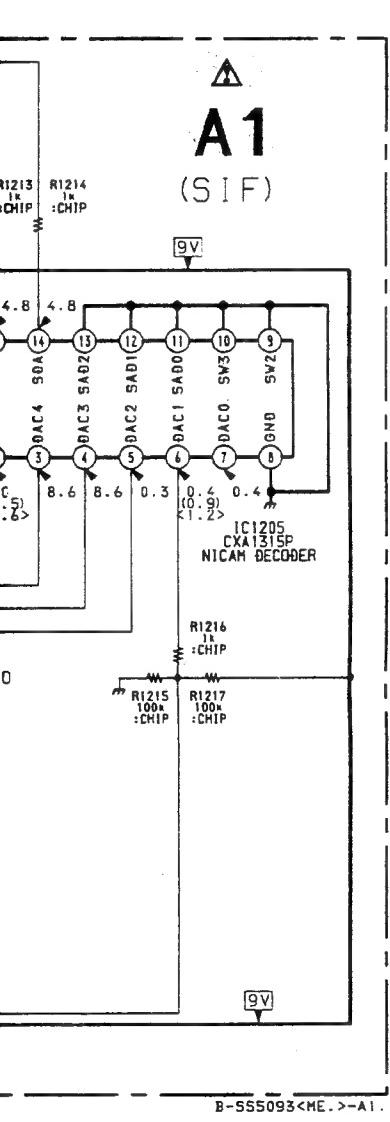


### Schematic diagram

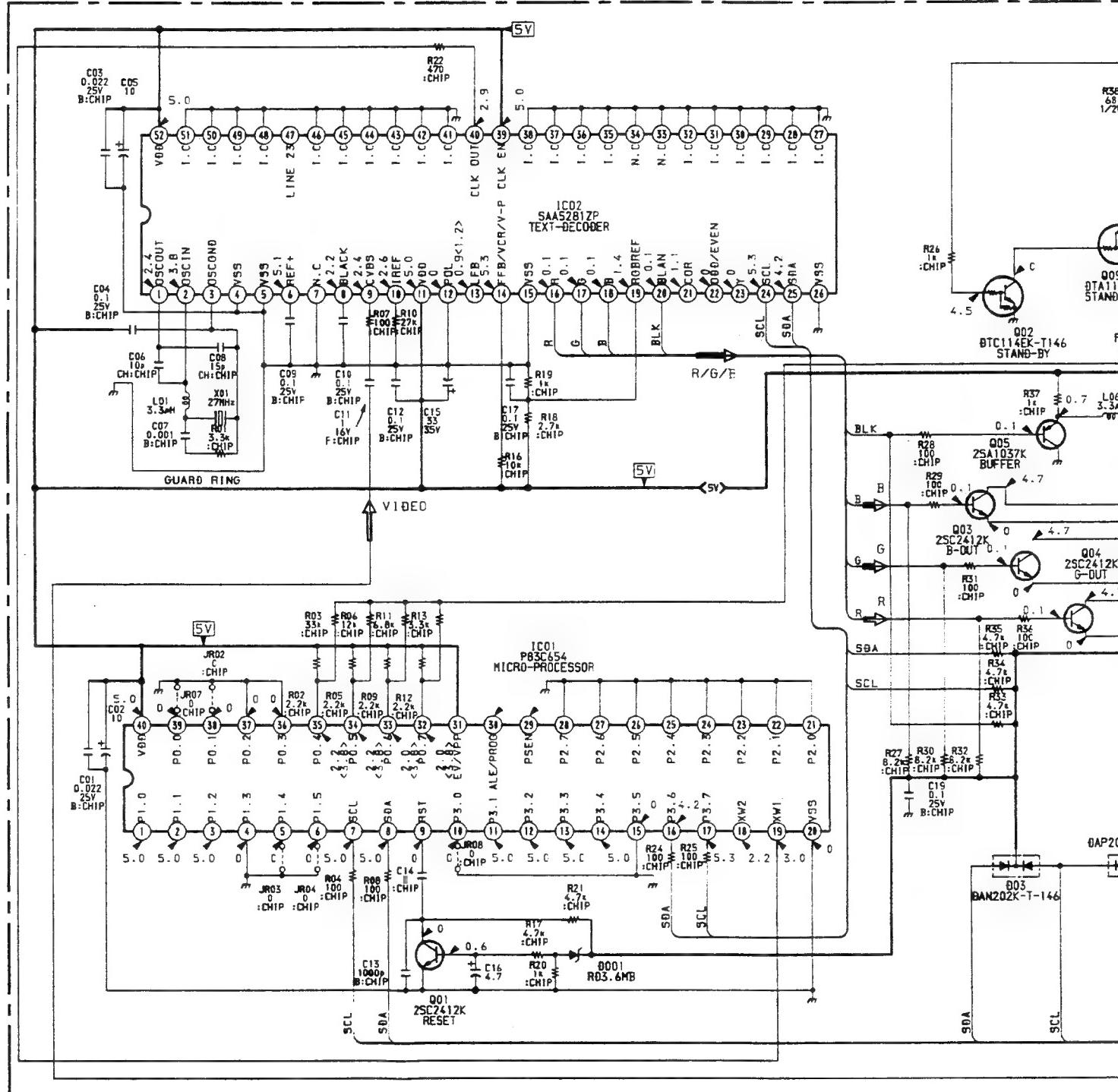


## Schematic diagrams

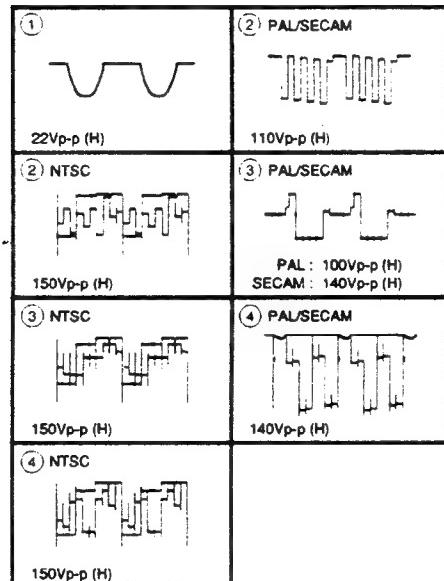
**A1, C, F1, V1** boards →



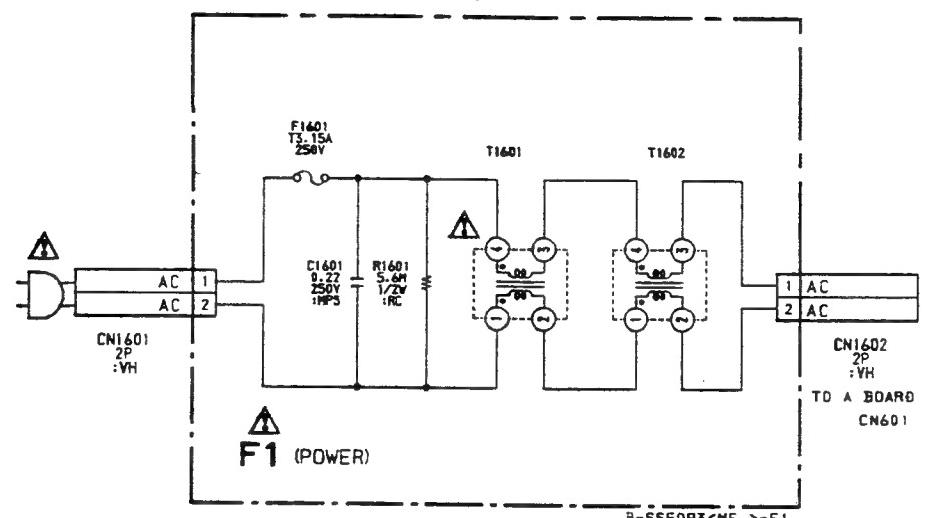
(KV-G25M11 only)



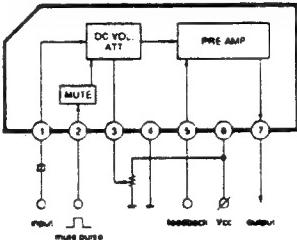
## C BOARD WAVEFORMS

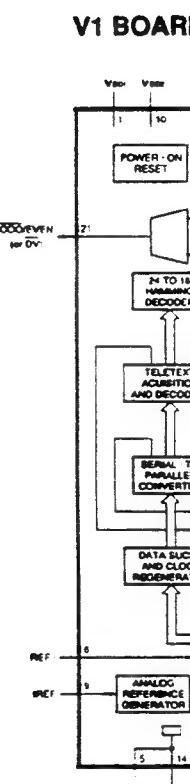
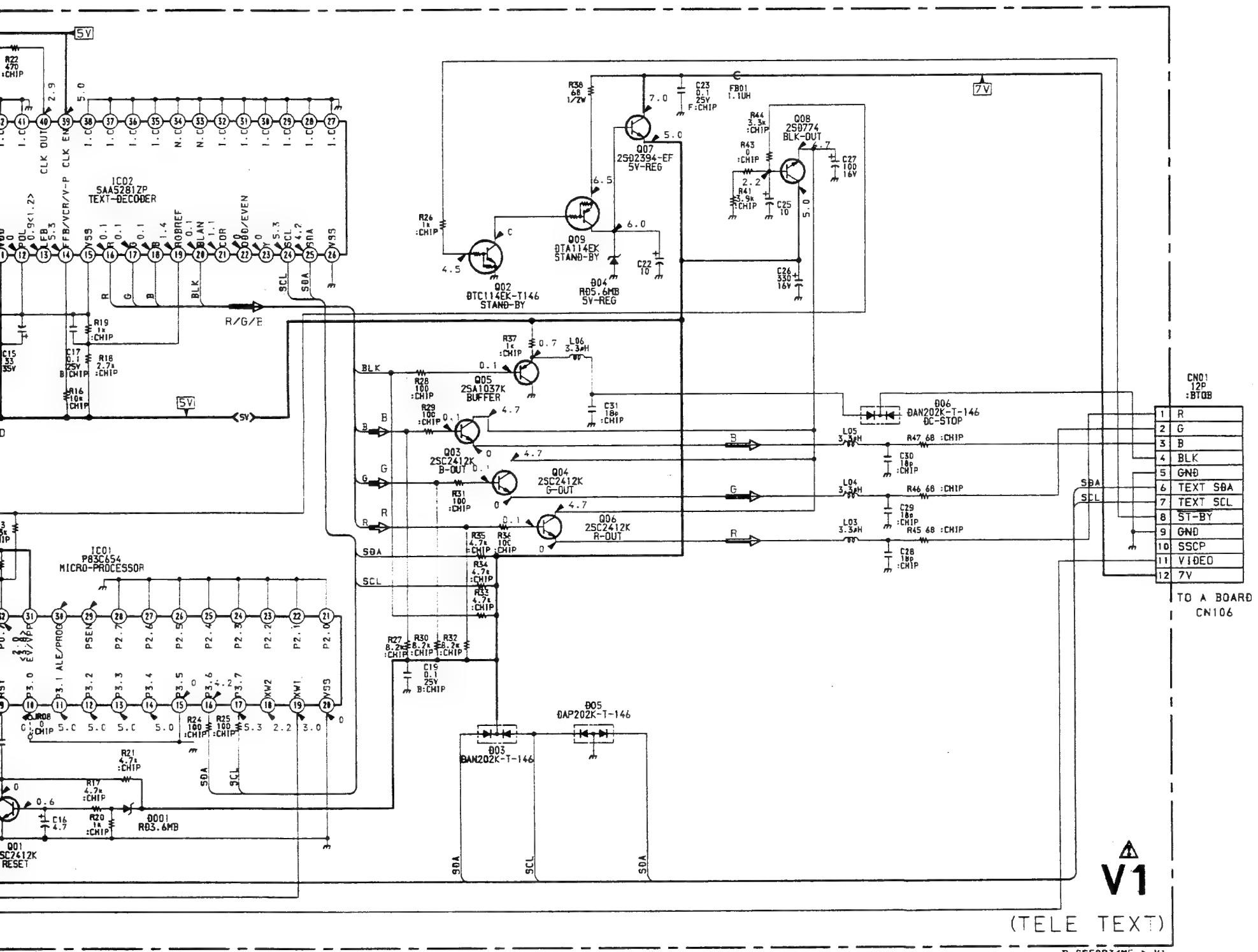


(KV-G25M1 (RUSS) only)



A1 BOARD IC1203 AN5262





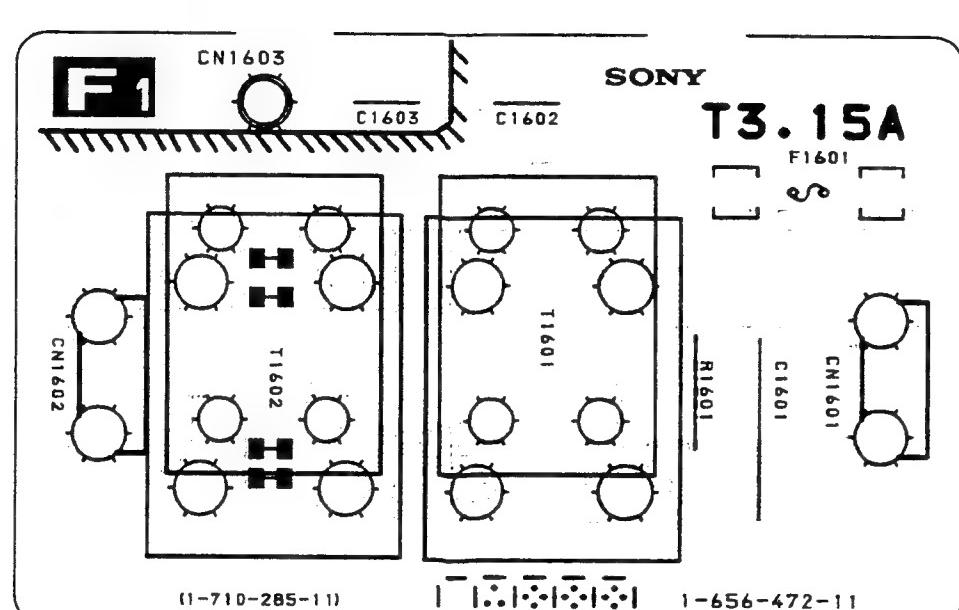
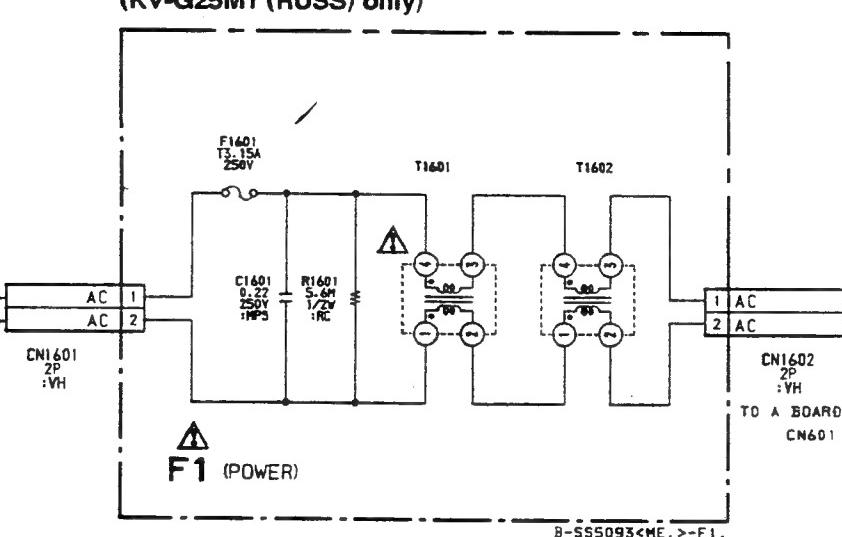
PRINTED WIRING BOARD

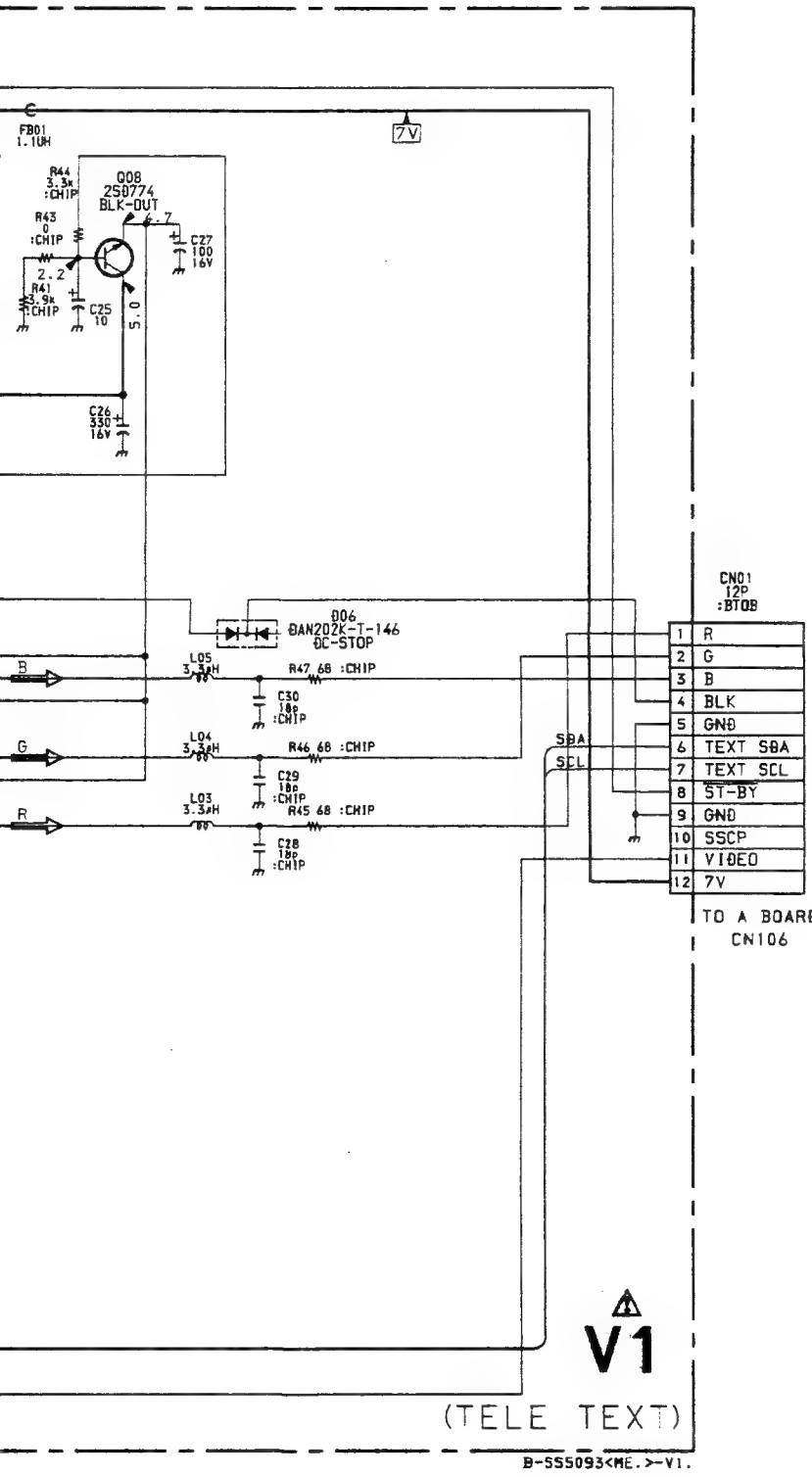
**F1**

[POWER]

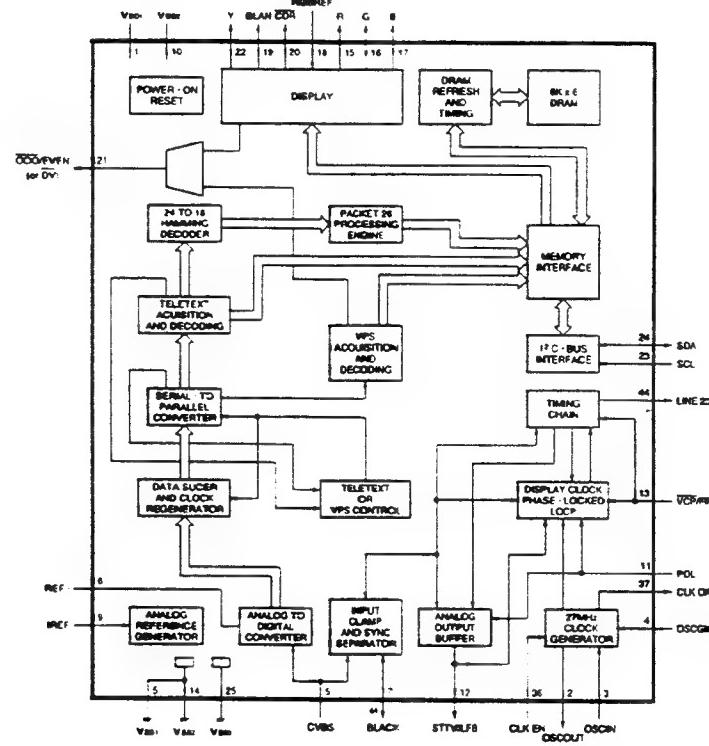
- F1 Board - (KV-G25M1 (RUSS) only)

(KV-G25M1 (RUSS) only)





V1 BOARD IC02 SAA5281ZP

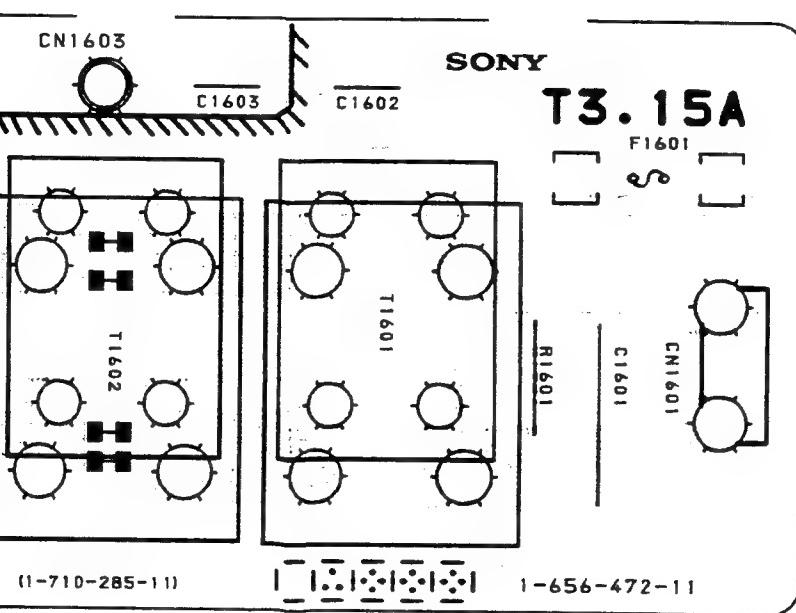


VIRING BOARD

F1

[POWER]

— (KV-G25M1 (RUSS) only)



PRINTED WIRING BOARDS

**A1**

[SIF]

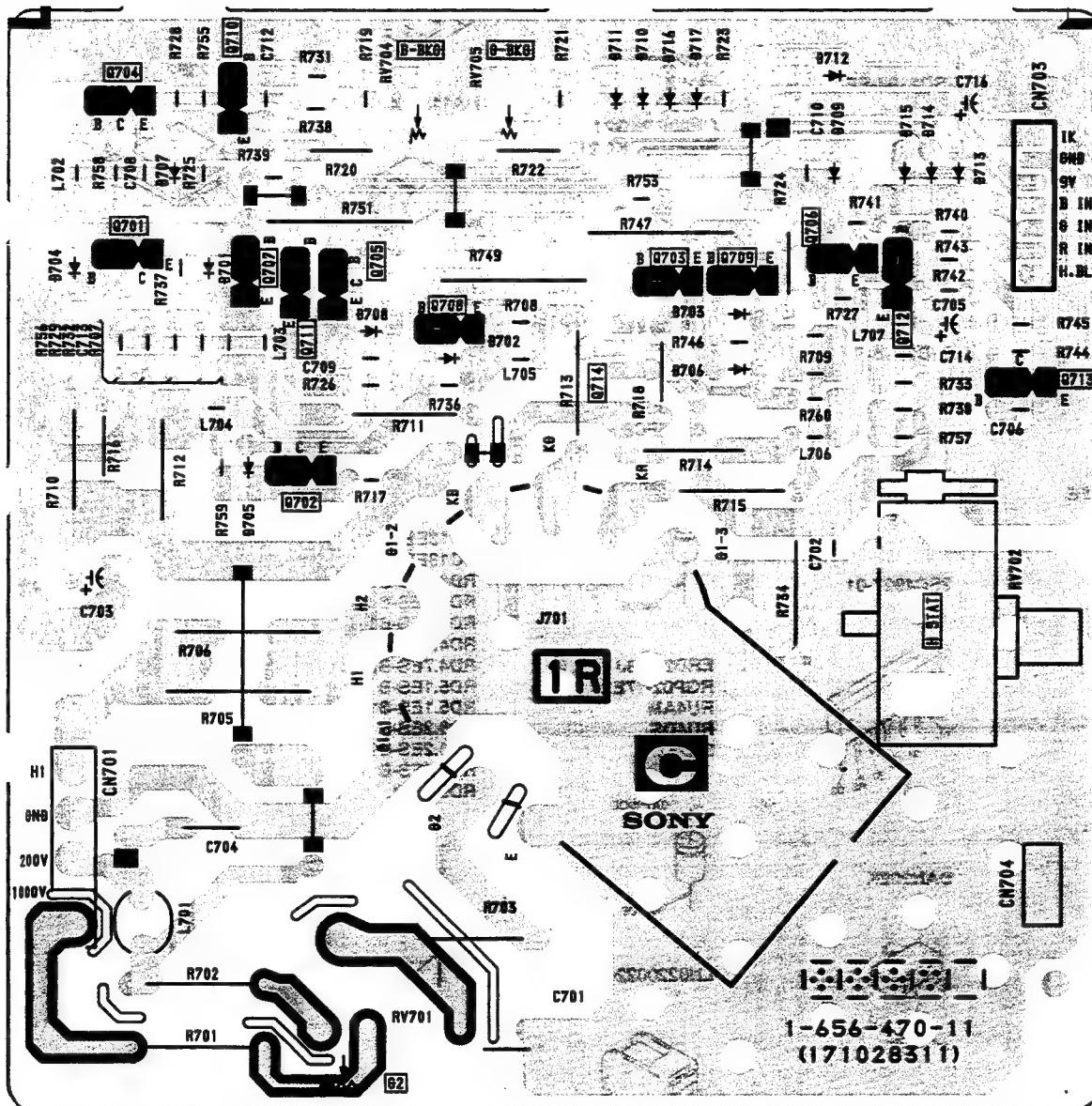
**C**

[RGB OUT]

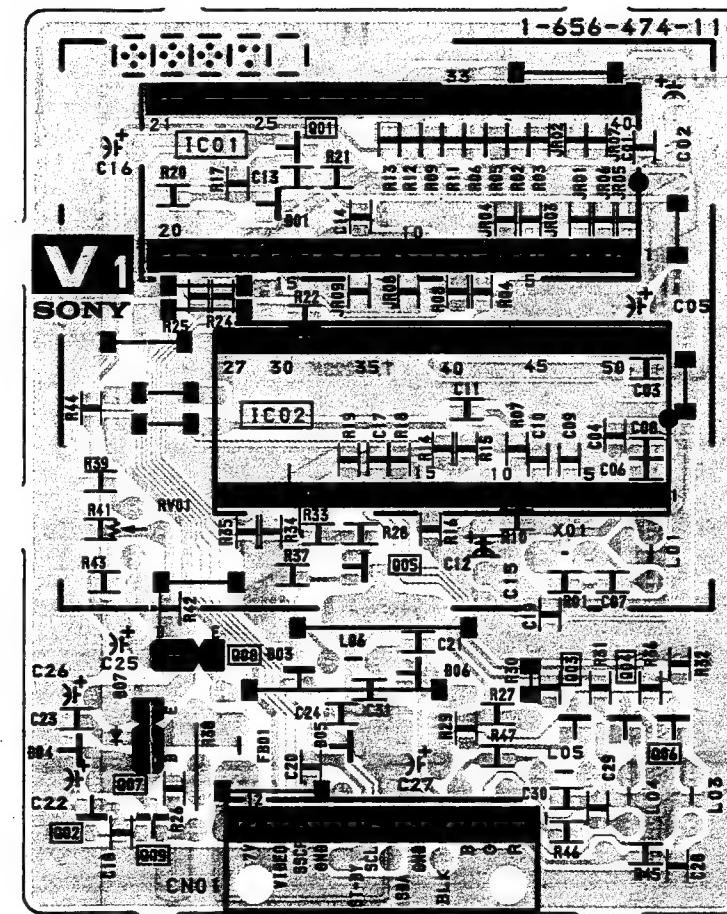
**V1**

[TELE TEXT]

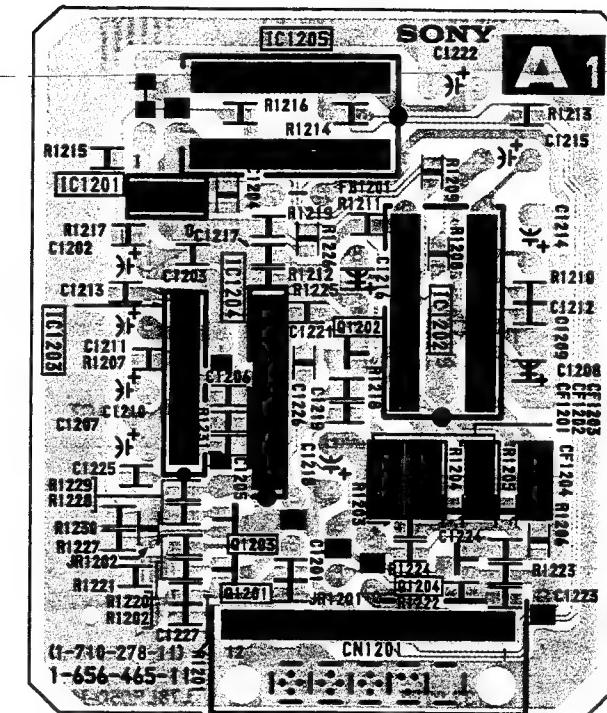
- C Board -



- V1 Board - (KV-G25M11 only)

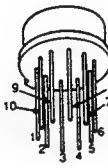


- A1 Board -

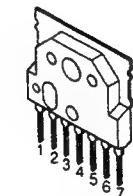


#### 5-4. SEMICONDUCTORS

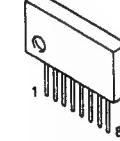
**AN5262**



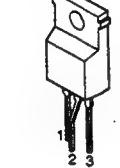
**LA7830**



**NJM2234L**

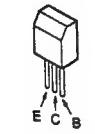


**SE-135N**



**DTA114EK  
DTC114EK  
DTC143TK  
DTC144EK  
2SA1037K-QR  
2SA1162-G  
2SC1623-L5L6  
2SC2412K-QR  
2SC2712-YG**

**2SC3209LK  
2SD774-34**



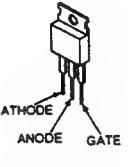
**DA204K**



**LN4SB60  
RBV-406H**

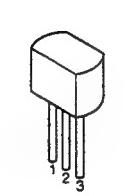


**5P4M**

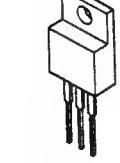


CAT24C04P (8PIN)  
CXA1110BS (30PIN)  
CXA1315P (16PIN)  
CXP85116B-615S (64PIN)  
CXP85224A-010S (64PIN)  
P83C654 (40PIN)  
SAA5281ZP (52PIN)  
TDA4665T (16PIN)  
TDA8366N3D (56PIN)  
TDA8395T (20PIN)  
TDA8424 (20PIN)  
TDA9820 (16PIN)

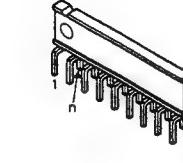
**LA7910**



**NJM7805FA**

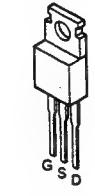


**STR-S6708**

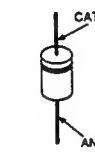


**2SA1091  
2SA1091-O  
2SC2551-O**

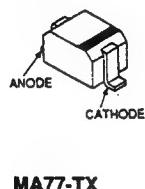
**2SD2394-EF**



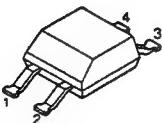
**D1NL20  
EL-1Z  
GP08D  
GP08DPKG23  
RGP10GPKG23**



**MA113-TX**

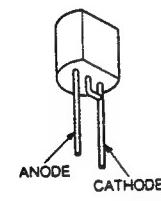


**PC123F2**

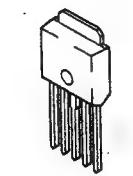


Dual In-line Package  
Pin 6 ~ 98

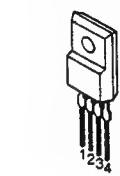
**HZT33-02TE  
 $\mu$ PC574J**



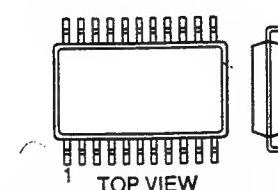
**L78LR05D-MA**



**PQ09RE11**

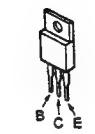


**$\mu$ PC4558G2 (8PIN)**

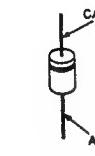


**2SC2410SN  
2SC2785-HFE**

**2SD2394-F**

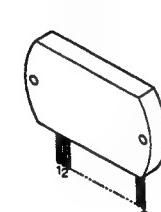


**ERC06-15S  
S3L20UF4  
30DF6FC8**

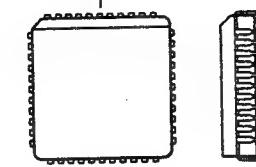


**RD13ES-B  
RD13ES-B2  
RD2.2ES-B  
RD3.6ES-B  
RD3.6ES-B1  
RD4.7ES-B  
RD4.7ES-B2  
RD5.1ES-B  
RD5.1ES-B1  
RD8.2ES-B  
RD8.2ES-B2  
RD9.1ES-B  
RD9.1ESL**

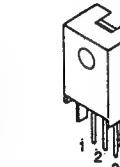
**LA7016**



**MSP3410 (44PIN)**



**SBX1790-11  
SBX1790-51**

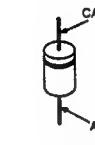


Small Outline L-leaded Package  
Pin 8 ~ 98

**2SC2611**

**2SC4927-01**

**ERD29-08J  
RGP02-17EL  
RU4AM  
RU4DS  
31DF2**



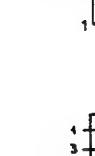
**RD3.6M-B  
RD3.6M-B1  
RD5.6M-B  
RD5.6M-B2**

Quad Flat J-leaded Package  
Pin 20 ~ 996

**2SC2669-O**

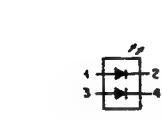
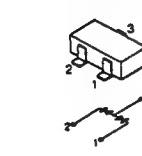
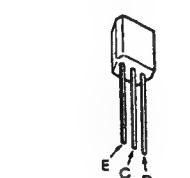
**DAP202K**

**DAN202K**



**LN0220022G**

TOP VIEW



## **SECTION 6**

# **EXPLODED VIEWS**

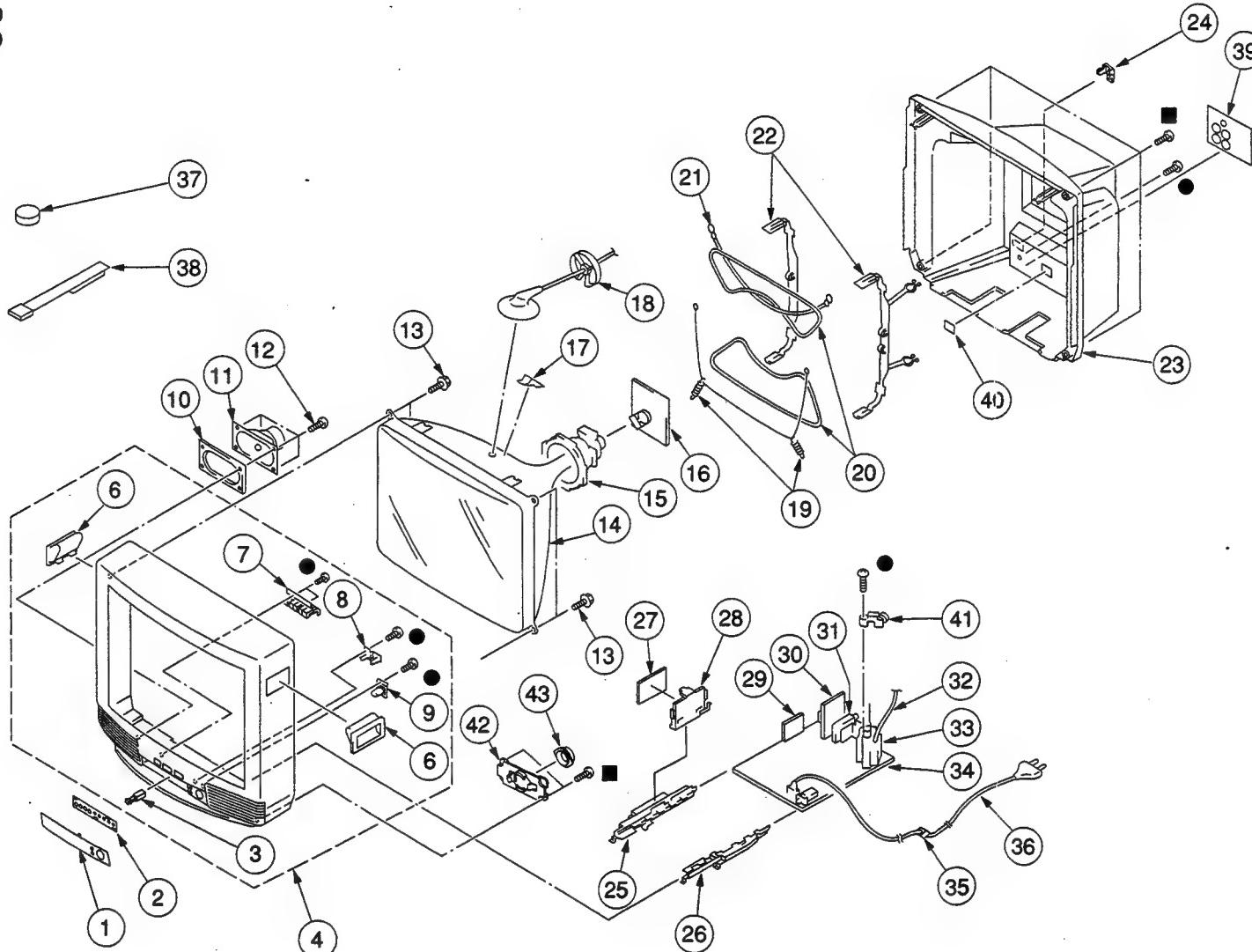
ROUTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
  - The construction parts of an assembled part are indicated with a collation number in the
  - Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

## **6-1. CHASSIS**

●: BVTP3 × 12 7-685-648-79  
■: BVTP4 × 16 7-685-663-79



**KV-G25M1/G25M11**  
**RM-870**

REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-048-702-11	DOOR, CONTROL	
2	4-048-575-11	LABEL, CONTROL	
3	4-627-936-01	LOCK, MINIATURE SIDE	
4	X-4032-787-1	BEZNET ASSY	
6	4-048-691-01	HANDLE	
7	4-048-687-01	BUTTON, MULTI	
8	4-049-123-01	GUIDE, LIGHT	
9	4-048-688-01	BUTTON, POWER	
10	4-037-613-01	CUSHION, SP	
11	1-504-305-11	SPEAKER (5X12CM)	
12	4-043-388-01	SCREW, STEP TAPPING	
13	4-390-505-01	SCREW (7), TAPPING	
14	A-8-73-242-05	PICTURE TUBE (MGKWL100)	
15	A-8-451-404-11	DEFLECTION Yoke (Y25G1AS)	
16	* A-1331-428-A	C BOARD, COMPLETE	
17	3-704-495-01	SPACER, DY	
18	* 3-704-372-11	HOLDER, HV CABLE	
19	4-369-318-61	SPRING, TENSION	
20	A-1-103-519-11	COVER, DEGAUSSING	
21	4-043-827-11	BAND, DEGAUSSING COIL	
22	* 4-042-988-01	HOLDER, DGC	
23	4-048-703-01	COVER, REAR	
24	4-049-130-01	CLAMP, CODE	
25	* 4-048-690-01	RAIL (L), GUIDE	
26	* 4-048-689-01	RAIL (R), GUIDE	
27	* A-1241-190-A	F1 BOARD, COMPLETE (KV-G25M1(RUSS))	
28	* 4-049-158-01	BRACKET, F1 PC BOARD (KV-G25M1(RUSS))	
29	* A-1347-103-A	V1 BOARD, COMPLETE (KV-G25M11)	
30	* A-1292-869-A	A1 BOARD, COMPLETE	
31	A-8-538-323-00	UNER, KT-AG40	
32	1-900-212-02	LEAD ASSY, FOCUS	
33	A-1-153-190-11	TRANSFORMER, INPUT (KV-G25M1(MD))	
34	* A-1297-513-A	A BOARD, COMPLETE (KV-G25M1(ME))	
	* A-1297-552-A	A BOARD, COMPLETE (KV-G25M1(HK))	
	* A-1297-554-A	A BOARD, COMPLETE (KV-G25M1(RUSS))	
	* A-1297-566-A	A BOARD, COMPLETE (KV-G25M11)	
35	A-8-389-778-11	BOARD, AC GND	
36	A-8-574-062-00	BOARD, POWER (HIGH CURRENT)	
	A-8-574-062-00	BOARD, POWER (LOW CURRENT)	
	A-8-574-062-00	BOARD, POWER (MEDIUM CURRENT)	
	A-8-574-062-00	BOARD, POWER (MEDIUM CURRENT)	
37	1-452-032-00	MAGNET, DISC	
38	X-4387-214-1	PERMALOY ASSY, CORRECTION	
39	4-049-121-01	LABEL, TERMINAL	
40	4-049-416-01	SHEET, BLIND	
41	4-039-460-01	HOLDER, FBT	
42	* 4-049-124-01	BRACKET, SPEAKER	
43	1-544-453-21	SPEAKER (2CM)	

**KV-G25M1/G25M11**  
RM-870

**KV-G25M1/G25M11**  
RM-870

**SECTION 7**  
**ELECTRICAL PARTS LIST**

**NOTE:**

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

**REF. NO.** **PART NO.** **DESCRIPTION** **REMARK**

\* A-1292-869-A A1 BOARD, COMPLETE

\*\*\*\*\*

C1201 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1202 1-104-665-11 ELECT 100MF 20% 16V  
C1203 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1204 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1205 1-164-505-11 CERAMIC CHIP 2.2MF 16V

C1206 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1207 1-126-157-11 ELECT 10MF 20% 16V  
C1208 1-164-232-11 CERAMIC CHIP 0.01MF 10% 50V  
C1209 1-104-664-11 ELECT 47MF 20% 16V  
C1210 1-124-234-00 ELECT 22MF 20% 16V

C1211 1-104-664-11 ELECT 47MF 20% 16V  
C1212 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1213 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1214 1-124-907-11 ELECT 10MF 20% 50V  
C1215 1-124-907-11 ELECT 10MF 20% 50V

C1216 1-104-664-11 ELECT 47MF 20% 16V  
C1217 1-164-232-11 CERAMIC CHIP 0.01MF 10% 50V  
C1218 1-104-664-11 ELECT 47MF 20% 16V  
C1219 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1221 1-164-505-11 CERAMIC CHIP 2.2MF 16V

C1222 1-104-664-11 ELECT 47MF 20% 16V  
C1223 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1224 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1225 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1227 1-164-505-11 CERAMIC CHIP 2.2MF 16V

C1228 1-104-664-11 ELECT 47MF 20% 16V  
C1229 1-164-232-11 CERAMIC CHIP 0.01MF 10% 50V  
C1230 1-124-234-00 ELECT 22MF 20% 16V  
C1231 1-124-234-00 ELECT 22MF 20% 16V

C1232 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1233 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1234 1-164-505-11 CERAMIC CHIP 2.2MF 16V  
C1235 1-164-505-11 CERAMIC CHIP 2.2MF 16V

C1236 1-104-664-11 ELECT 47MF 20% 16V  
C1237 1-164-232-11 CERAMIC CHIP 0.01MF 10% 50V  
C1238 1-124-234-00 ELECT 22MF 20% 16V  
C1239 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1240 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1241 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1242 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1243 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1244 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1245 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1246 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1247 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1248 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1249 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1250 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1251 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1252 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1253 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1254 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1255 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1256 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1257 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1258 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1259 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1260 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1261 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1262 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1263 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1264 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1265 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1266 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1267 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1268 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1269 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1270 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1271 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1272 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1273 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1274 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1275 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1276 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1277 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1278 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1279 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1280 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1281 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1282 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1283 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1284 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1285 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1286 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1287 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1288 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1289 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1290 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1291 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1292 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1293 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1294 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1295 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1296 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1297 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1298 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1299 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1300 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1301 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1302 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1303 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1304 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1305 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1306 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1307 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1308 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1309 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1310 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1311 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1312 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1313 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1314 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1315 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1316 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1317 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1318 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1319 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1320 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1321 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1322 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1323 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1324 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1325 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1326 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1327 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1328 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1329 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1330 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

**A1**

**A1** **A**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1224	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C101	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
R1225	1-216-017-00	METAL GLAZE 47	5% 1/10W	C102	1-136-169-00	FILM 0.22MF	5% 50V
R1226	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C105	1-104-665-11	ELECT 100MF	20% 16V
R1227	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C106	1-124-907-11	ELECT 10MF	20% 50V
R1228	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C107	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R1229	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C108	1-126-942-61	ELECT 1000MF	20% 16V
R1230	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C109	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
R1231	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C114	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
*****							
* A-1297-513-A A BOARD, COMPLETE (KV-G2							

KV-G25M1/G25M11

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The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

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F. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C609	1-126-600-11	ELECT	100MF 20% 160V
C332	1-136-165-00	FILM 0.1MF	5% 50V	C610	1-126-942-61	ELECT	1000MF 20% 16V
C333	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C612	1-102-228-00	CERAMIC	470PF 10% 500V
C335	1-102-973-00	CERAMIC 100PF	5% 50V	C613	1-102-824-00	CERAMIC	470PF 5% 50V
C337	1-124-916-11	ELECT 22MF	20% 50V	C614	1-124-557-11	ELECT	1000MF 20% 25V
C338	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V	C615	▲ 1-164-497-51	CERAMIC	470PF 10% 400V
C339	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C616	1-102-228-00	CERAMIC	470PF 10% 500V
C340	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C620	1-136-619-11	FILM	0.0016MF 3% 2KV
C342	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C621	▲ 1-136-546-13	FILM	0.1MF 20% 250V
C344	1-124-907-11	ELECT 10MF	20% 50V	C622	1-106-383-00	MYLAR	0.047MF 10% 200V
C350	1-104-664-11	ELECT 47MF	20% 16V	C623	1-124-120-11	ELECT	220MF 20% 16V
C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C624	1-126-942-61	ELECT	1000MF 20% 16V
C352	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C625	1-102-074-00	CERAMIC	0.001MF 10% 50V
C358	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C630	▲ 1-164-497-51	CERAMIC	470PF 10% 400V
C359	1-104-665-11	ELECT 100MF	20% 16V	C631	1-161-830-00	CERAMIC	0.0047MF 99% 500V
367	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C801	1-123-024-21	ELECT	33MF
C368	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C802	1-106-367-00	MYLAR	0.01MF 10% 200V
C369	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C804	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C370	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C805	1-102-244-00	CERAMIC	220PF 10% 500V
C374	1-124-910-11	ELECT 47MF	20% 50V	C806	1-124-903-11	ELECT	1MF 20% 50V
C375	1-124-910-11	ELECT 47MF	20% 50V	C807	1-136-540-11	FILM	0.82MF 5% 200V
C402	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C808	1-130-959-00	FILM	0.047MF 10% 400V
C403	1-124-916-11	ELECT 22MF	20% 50V	C809	1-162-115-00	CERAMIC	330PF 10% 2KV
C405	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C810	1-106-365-00	MYLAR	0.0082MF 99% 200V
C406	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C811	1-162-318-11	CERAMIC	0.001MF 10% 500V
407	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C812	1-136-617-11	FILM	0.019MF 3% 2KV
C408	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C816	1-123-947-00	ELECT	10MF 20% 160V
C409	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C820	1-162-135-11	CERAMIC	560PF 10% 2KV
C410	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C821	1-106-391-12	MYLAR	0.1MF 10% 200V
C411	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C822	1-136-541-11	FILM	1.5MF 5% 200V
C412	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C823	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C413	1-104-665-11	ELECT 100MF	20% 16V	C825	1-106-367-00	MYLAR	0.01MF 10% 200V
C414	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C850	1-124-480-11	ELECT	470MF 20% 25V
C415	1-163-017-00	CERAMIC CHIP 0.0047MF	10V 50V	C852	1-104-574-11	CERAMIC	0.0047MF 10% 2KV
C416	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C853	1-162-318-11	CERAMIC	0.001MF 10% 500V
A17	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C854	1-124-480-11	ELECT	470MF 20% 25V
C418	1-216-295-00	CONDUCTOR, CHIP (2012)		C856	1-162-318-11	CERAMIC	0.001MF 10% 500V
C419	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C857	1-130-493-00	MYLAR	0.068MF 5% 50V
C420	1-104-664-11	ELECT 47MF	20% 16V	C860	1-102-228-00	CERAMIC	470PF 10% 500V
C422	1-216-295-00	CONDUCTOR, CHIP (2012)		C861	1-107-654-11	ELECT	33MF 20% 250V
C423	1-216-295-00	CONDUCTOR, CHIP (2012)		C875	1-124-910-11	ELECT	47MF 20% 50V
C424	1-216-295-00	CONDUCTOR, CHIP (2012)		C876	1-108-702-11	MYLAR	0.068MF 10% 100V
C425	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C891	1-163-007-11	CERAMIC CHIP	680PF 10% 50V
C501	1-102-228-00	CERAMIC 470PF	10% 500V	C898	1-106-379-12	MYLAR	0.033MF 10% 100V
C523	1-104-665-11	ELECT 100MF	20% 16V	C901	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C548	1-106-220-00	MYLAR 0.1MF	10% 100V	C902	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C551	1-126-968-11	ELECT 100MF	20% 35V	C1201	1-104-665-11	ELECT	100MF 20% 16V
C552	1-126-968-11	ELECT 100MF	20% 35V	C1202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C553	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C1204	1-104-665-11	ELECT 100MF	20% 16V
C554	1-102-244-00	CERAMIC 220PF	10% 500V	C1205	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C555	1-101-804-00	CERAMIC 10PF	5% 500V	C1210	1-104-665-11	ELECT 100MF	20% 16V
C562	1-104-665-11	ELECT 100MF	20% 16V	C1213	1-124-903-11	ELECT 1MF	20% 50V
601	1-162-318-11	CERAMIC 0.001MF	10% 500V	C1214	1-124-907-11	ELECT 10MF	20% 50V
C602	1-161-830-00	CERAMIC 0.0047MF	99% 500V	C1217	1-104-665-11	ELECT 100MF	20% 16V
C604	1-125-483-11	ELECT(BLOCK) 470MF	20% 400V	C1218	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
C608	1-104-332-11	CERAMIC 470PF	10% 2KV	C1221	1-164-005-11	CERAMIC CHIP 0.47MF	25V

**KV-G25M1/G25M11**

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
R021	1-216-065-00	METAL GLAZE	4.7K	5	1/10W	R266	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R027	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R028	1-216-025-00	METAL GLAZE	100	5%	1/10W	R302	1-216-035-00	METAL GLAZE	270	5%	1/10W
R029	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R303	1-216-025-00	METAL GLAZE	100	5%	1/10W
R030	1-216-085-00	METAL GLAZE	33K	5%	1/10W	R304	1-216-025-00	METAL GLAZE	100	5%	1/10W
R031	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R305	1-216-025-00	METAL GLAZE	100	5%	1/10W
R033	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R306	1-216-025-00	METAL GLAZE	100	5%	1/10W
R035	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R307	1-216-025-00	METAL GLAZE	100	5%	1/10W
R036	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R308	1-216-033-00	METAL GLAZE	220	5%	1/10W
R038	1-216-033-00	METAL GLAZE	220	5%	1/10W	R309	1-216-033-00	METAL GLAZE	220	5%	1/10W
R040	1-216-033-00	METAL GLAZE	220	5%	1/10W	R310	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R041	1-216-025-00	METAL GLAZE	100	5%	1/10W	R311	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R042	1-216-039-00	METAL GLAZE	390	5%	1/10W	R312	1-216-025-00	METAL GLAZE	100	5%	1/10W
R043	1-216-079-00	METAL GLAZE	18K	5%	1/10W	R313	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R044	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R314	1-216-025-00	METAL GLAZE	100	5%	1/10W
R046	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R315	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R047	1-216-025-00	METAL GLAZE	100	5%	1/10W	R316	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R048	1-216-025-00	METAL GLAZE	100	5%	1/10W	R317	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R049	1-216-121-00	METAL GLAZE	1M	5%	1/10W	R318	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R050	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R319	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R051	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R320	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R052	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R321	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R322	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R057	1-216-049-00	METAL GLAZE	1K	5	1/10W	R324	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R059	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R327	1-216-025-00	METAL GLAZE	100	5%	1/10W
R067	1-216-033-00	METAL GLAZE	220	5%	1/10W	R327	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M1)		
R068	1-216-025-00	METAL GLAZE	100	5%	1/10W	R328	1-216-025-00	METAL GLAZE	100	5%	1/10W
R071	1-216-037-00	METAL GLAZE	330	5%	1/10W	R328	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M1)		
R076	1-216-025-00	METAL GLAZE	100	5%	1/10W	R329	1-216-025-00	METAL GLAZE	100	5%	1/10W
R077	1-216-025-00	METAL GLAZE	100	5%	1/10W	R329	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M1)		
R090	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R329	1-216-295-00	CONDUCTOR, CHIP (2012)	(KV-G25M1)		
R101	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R330	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R332	1-216-033-00	METAL GLAZE	220	5%	1/10W
R103	1-216-041-00	METAL GLAZE	470	5%	1/10W	R334	1-216-041-00	METAL GLAZE	470	5%	1/10W
R113	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R114	1-216-041-00	METAL GLAZE	470	5%	1/10W	R336	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R115	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R338	1-216-043-91	METAL GLAZE	560	5%	1/10W
R116	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R339	1-216-036-00	METAL GLAZE	300	5%	1/10W
R117	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R340	1-216-035-00	METAL GLAZE	270	5%	1/10W
R118	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R341	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R119	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	R351	1-216-001-00	METAL GLAZE	10	5%	1/10W
R120	1-216-109-00	METAL GLAZE	330K	5%	1/10W	R355	1-216-001-00	METAL GLAZE	10	5%	1/10W
R131	1-216-464-11	METAL OXIDE	18K	5%	2W	R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R180	1-216-033-00	METAL GLAZE	220	5%	1/10W	R403	1-216-021-00	METAL GLAZE	68	5%	1/10W
R181	1-216-033-00	METAL GLAZE	220	5%	1/10W	R406	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R182	1-216-033-00	METAL GLAZE	220	5%	1/10W	R407	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R242	1-216-043-91	METAL GLAZE	560	5%	1/10W	R408	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R243	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R409	1-216-025-00	METAL GLAZE	100	5%	1/10W
R244	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R410	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R245	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R411	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R250	1-216-295-00	CONDUCTOR, CHIP (2012)				R412	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R251	1-216-295-00	CONDUCTOR, CHIP (2012)				R413	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R252	1-249-411-11	CARBON	330	5%	1/4W						
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W						
R254	1-249-389-11	CARBON	4.7	5%	1/4W						
R265	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W						

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and mark are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC354	8-759-251-56	IC TDA8395T		Q208	8-729-901-01	TRANSISTOR DTC144EK	
IC401	8-759-800-65	IC LA7910		Q210	8-729-900-98	TRANSISTOR DTC143TK	
IC521	8-759-195-63	IC PQ09RE11		Q301	8-729-900-53	TRANSISTOR DTC114EK	
IC551	8-759-801-98	IC LA7830		Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(KV-G25M11)
IC601	8-749-010-84	IC STR-S6708		Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC602	8-749-920-61	IC SE-135N		Q402	8-729-922-66	TRANSISTOR 2SC2410SN	
IC603	A 8-749-010-64	PHOTO COUPLED IC123F2		Q403	8-729-900-98	TRANSISTOR DTC143TK	
IC801	8-759-100-96	IC UPC4558G2		Q404	8-729-900-98	TRANSISTOR DTC143TK	
IC1210	8-759-100-96	IC UPC4558G2		Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
<JACK>							
J251	1-770-785-11	JACK		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
J1201	1-770-660-11	JACK BLOCK, PIN 4P		Q407	8-729-216-22	TRANSISTOR 2SA1162-G	
J1202	1-695-238-11	JACK BLOCK, PIN 2P		Q408	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<CHIP CONDUCTOR>							
JR102	1-216-295-00	CONDUCTOR, CHIP (2012)		Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
JR103	1-216-295-00	CONDUCTOR, CHIP (2012) (KV-G25M11)		Q410	8-729-216-22	TRANSISTOR 2SA1162-G	
JR104	1-216-295-00	CONDUCTOR, CHIP (2012)		Q411	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<COIL>							
L002	1-410-470-11	INDUCTOR	10UH	Q412	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L003	1-408-411-00	INDUCTOR	15UH	Q413	8-729-900-98	TRANSISTOR DTC143TK	
L101	1-410-396-41	FERRITE BEAD	INDUCTOR 0.45UH	Q414	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L301	1-408-609-41	INDUCTOR	33UH	Q415	8-729-900-98	TRANSISTOR DTC143TK	
L401	1-410-498-11	INDUCTOR	1.2UH	Q416	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L402	1-410-510-11	INDUCTOR	12UH	Q417	8-729-900-98	TRANSISTOR DTC143TK	
L403	1-410-510-11	INDUCTOR	12UH	Q418	8-729-900-98	TRANSISTOR DTC143TK	
L404	1-410-508-11	INDUCTOR	8.2UH	Q561	8-729-200-17	TRANSISTOR 2SA1091-0	
L405	1-410-508-11	INDUCTOR	8.2UH	Q601	8-729-120-28	TRANSISTOR 2SC2412K	
L406	1-410-507-11	INDUCTOR	6.8UH	Q801	8-729-140-96	TRANSISTOR 2SD774-34	
L407	1-410-511-11	INDUCTOR	15UH	Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
L408	1-535-303-00	LEAD, JUMPER (5.0MM)		Q821	8-729-018-99	TRANSISTOR 2SD2394-F	
L409	1-535-303-00	LEAD, JUMPER (5.0MM)		Q902	8-729-901-01	TRANSISTOR DTC144EK	
L410	1-535-303-00	LEAD, JUMPER (5.0MM)		Q903	8-729-901-01	TRANSISTOR DTC144EK	
L411	1-535-303-00	LEAD, JUMPER (5.0MM)		Q1201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L802	1-412-527-11	INDUCTOR	15UH	Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L804	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE		Q1203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L805	1-459-907-11	COIL, HORIZONTAL LINEARITY		Q1204	8-729-216-22	TRANSISTOR 2SA1162-G	
L807	1-459-390-00	COIL (WITH CORE)		Q1207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L808	1-412-553-11	INDUCTOR	3.3MMH	Q1208	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L821	1-459-111-00	COIL, DRAM CORE (CDI)		Q1265	8-729-900-98	TRANSISTOR DTC143TK	
L850	1-408-947-00	INDUCTOR	2.2MMH	Q1513	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<TRANSISTOR>							
Q030	8-729-120-28	TRANSISTOR 2SC1623-L5L6		<RESISTOR>			
Q031	8-729-216-22	TRANSISTOR 2SA1162-G		R001	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R002	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R003	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R004	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q202	8-729-216-22	TRANSISTOR 2SA1162-G		R007	1-216-073-00	METAL GLAZE	10K 5% 1/10W
Q207	8-729-216-22	TRANSISTOR 2SA1162-G		R008	1-216-049-00	METAL GLAZE	1K 5% 1/10W
				R009	1-216-049-00	METAL GLAZE	1K 5% 1/10W
				R010	1-216-049-00	METAL GLAZE	1K 5% 1/10W
				R012	1-216-017-00	METAL GLAZE	47 5% 1/10W
				R013	1-216-049-00	METAL GLAZE	1K 5% 1/10W
				R014	1-216-049-00	METAL GLAZE	1K 5% 1/10W
				R015	1-216-043-91	METAL GLAZE	560 5% 1/10W
				R018	1-216-033-00	METAL GLAZE	220 5% 1/10W
				R019	1-216-101-00	METAL GLAZE	150K 5% 1/10W
				R020	1-216-025-00	METAL GLAZE	100 5% 1/10W
							(KV-G25M11)

**KV-G25M1/G25M11**
**RM-870**
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 The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
R910	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		<TRANSFORMER>
R911	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R913	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R914	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R915	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R1201	1-216-023-00	METAL GLAZE	82	5%	1/10W		
R1202	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1203	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R1205	1-216-023-00	METAL GLAZE	82	5%	1/10W		
R1206	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R1211	1-216-021-00	METAL GLAZE	68	5%	1/10W		
R1212	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1215	1-216-113-00	METAL GLAZE	470K	5%	1/10W		
R1216	1-216-113-00	METAL GLAZE	470K	5%	1/10W		
R1218	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R1219	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R1220	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1221	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R1227	1-216-689-11	METAL GLAZE	39K	5%	1/10W		
R1228	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1229	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R1230	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R1231	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1232	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W		
R1233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R1235	1-216-689-11	METAL GLAZE	39K	5%	1/10W		
R1239	1-249-389-11	CARBON	4.7	5%	1/4W	F	
R1240	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R1241	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R1243	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R1245	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R1246	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R1247	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R1248	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W		
R1249	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R1513	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R1514	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R1515	1-216-025-00	METAL GLAZE	100	5%	1/10W		
<b>&lt;SWITCH&gt;</b>							
<b>SG01 △1-762-087-11 SWITCH, PUSH (AC POWER)</b>							
S801	1-572-707-11	SWITCH, LEVER					
S901	1-570-577-11	SWITCH, PUSH					
S902	1-570-577-11	SWITCH, PUSH					
S903	1-570-577-11	SWITCH, PUSH					
S904	1-570-577-11	SWITCH, PUSH					
S905	1-570-577-11	SWITCH, PUSH					
<b>&lt;SPARK GAP&gt;</b>							
SG801	1-519-422-11	GAP, SPARK					
<b>&lt;FILTER&gt;</b>							
SWF401	1-760-771-11	FILTER, SURFACE WAVE					
<b>&lt;CONNECTOR&gt;</b>							
CN701	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P					
CN703	*1-564-509-11	PLUG, CONNECTOR 6P					
CN704	1-695-915-11	TAB (CONTACT)					
<b>&lt;DIODE&gt;</b>							
D701	8-719-911-19	DIODE 1SS119-25					
D702	8-719-911-19	DIODE 1SS119-25					
D703	8-719-911-19	DIODE 1SS119-25					
D704	8-719-911-19	DIODE 1SS119-25					
D705	8-719-911-19	DIODE 1SS119-25					
D706	8-719-911-19	DIODE 1SS119-25					
D707	8-719-911-19	DIODE 1SS119-25					
D708	8-719-911-19	DIODE 1SS119-25					
D709	8-719-911-19	DIODE 1SS119-25					
D710	8-719-911-19	DIODE 1SS119-25					

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The components identified by shading  
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK					
R414	1-216-041-00	METAL GLAZE	470	5%	1/10W	R617	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R415	1-216-033-00	METAL GLAZE	220	5%	1/10W	R619	1-249-377-11	CARBON	0.47	5%	1/4W	F
R416	1-216-033-00	METAL GLAZE	220	5%	1/10W	R621	1-211-748-11	FUSIBLE	5.6	5%	5W	F
R417	1-216-033-00	METAL GLAZE	220	5%	1/10W	R622	1-217-190-21	WIREWOUND	0.15	10%	2W	F
R418	1-216-045-00	METAL GLAZE	680	5%	1/10W	R623	1-247-807-31	CARBON	100	5%	1/4W	
R419	1-216-049-00	METAL GLAZE	1K	5	1/10W	R624	1-215-881-11	METAL OXIDE	15	5%	2W	F
R420	1-216-039-00	METAL GLAZE	390	5%	1/10W	R625	1-249-424-11	CARBON	3.9K	5%	1/4W	
R421	1-216-033-00	METAL GLAZE	220	5%	1/10W	R626	1-249-420-11	CARBON	1.8K	5%	1/4W	
R422	1-216-027-00	METAL GLAZE	120	5%	1/10W	R627	1-249-417-11	CARBON	1K	5%	1/4W	
R423	1-216-029-00	METAL GLAZE	150	5%	1/10W	R628	1-249-417-11	CARBON	1K	5%	1/4W	
R424	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R629	1-249-401-11	CARBON	47	5%	1/4W	
R425	1-216-039-00	METAL GLAZE	390	5%	1/10W	R635	1-215-882-00	METAL OXIDE	22	5%	2W	F
R426	1-216-029-00	METAL GLAZE	150	5%	1/10W				(KV-G25M11)			
R427	1-216-037-00	METAL GLAZE	330	5%	1/10W	R636	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R428	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R801	1-215-920-11	METAL OXIDE	3.3K	5%	3W	F
R429	1-216-039-00	METAL GLAZE	390	5%	1/10W	R802	1-249-387-11	CARBON	3.3	5%	1/4W	F
R430	1-216-041-00	METAL GLAZE	470	5%	1/10W	R804	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R431	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R805	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R432	1-216-041-00	METAL GLAZE	470	5%	1/10W	R808	1-535-303-00	LEAD, JUMPER	(5.0MM)			
R433	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R809	1-247-756-11	CARBON	2.2K	5%	1/2W	F
R434	1-216-041-00	METAL GLAZE	470	5%	1/10W	R811	1-216-346-00	METAL OXIDE	0.56	5%	1W	F
R435	1-216-041-00	METAL GLAZE	470	5%	1/10W	R812	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R436	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R816	1-249-430-11	CARBON	12K	5%	1/4W	
R437	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R820	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R440	1-216-029-00	METAL GLAZE	150	5%	1/10W	R821	1-215-910-00	METAL OXIDE	68	5%	3W	F
R441	1-216-021-00	METAL GLAZE	68	5%	1/10W	R822	1-216-429-00	METAL OXIDE	270	5%	1W	F
R521	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R823	1-247-756-11	CARBON	2.2K	5%	1/2W	F
R552	1-216-105-91	METAL GLAZE	220K	5%	1/10W	R825	1-249-392-11	CARBON	8.2	5%	1/4W	
						R826	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R553	1-216-295-00	CONDUCTOR, CHIP (2012)				R827	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
		(KV-G25M1 (RUSS)/(HK), KV-G25M11)				R828	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R555	1-249-429-11	CARBON	10K	5%	1/4W	R829	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R556	1-216-049-00	METAL GLAZE	1K	5	1/10W	R831	1-216-426-11	METAL OXIDE	82	5%	1W	F
R557	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	R832	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R560	1-216-295-00	CONDUCTOR, CHIP (2012)				R834	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R561	1-249-421-11	CARBON	2.2K	5%	1/4W	R851	1-249-382-11	CARBON	1.2	5%	1/4W	F
R562	1-249-420-11	CARBON	1.8K	5%	1/4W	R852	1-249-923-11	CARBON	1K	5%	1/4W	F
R563	1-247-885-00	CARBON	180K	5%	1/4W	R853	1-249-377-11	CARBON	0.47	5%	1/4W	F
R564	1-216-091-00	METAL GLAZE	56K	5%	1/10W	R854	1-249-377-11	CARBON	0.47	5%	1/4W	F
R565	1-216-091-00	METAL GLAZE	56K	5%	1/10W	R855	1-202-818-00	SOLID	1K	20%	1/2W	
R566	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R856	1-249-425-11	CARBON	4.7K	5%	1/4W	
R569	1-247-883-00	CARBON	150K	5%	1/4W	R857	1-249-438-11	CARBON	56K	5%	1/4W	
R570	1-216-295-00	CONDUCTOR, CHIP (2012)				R858	1-216-370-11	METAL OXIDE	1.2	5%	2W	FZ
		(KV-G25M1 (RUSS)/(HK), KV-G25M11)				R860	1-247-887-00	CARBON	220K	5%	1/4W	
R603	1-249-416-11	CARBON	820	5%	1/4W	R881	1-216-043-91	METAL GLAZE	560	5%	1/10W	
R604	1-249-416-11	CARBON	820	5%	1/4W	R882	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R606	1-215-915-11	METAL OXIDE	470	5%	3W	R883	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R608	1-535-303-00	LEAD, JUMPER	(5.0MM)			R895	1-216-348-00	METAL OXIDE	0.82	5%	1W	F
R609	1-249-381-11	CARBON	1	5%	1/4W	R898	1-249-421-11	CARBON	2.2K	5%	1/4W	
R610	1-215-924-00	METAL OXIDE	15K	5%	3W	R902	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R611	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R904	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R612	1-249-377-11	CARBON	0.47	5%	1/4W	R905	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R613	1-249-377-11	CARBON	0.47	5%	1/4W	R906	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R614	1-215-877-11	METAL OXIDE	22K	5%	1W	R907	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R615	1-249-389-11	CARBON	4.7	5%	1/4W	R908	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R616	A 1-218-265-91	METAL	8.2M	5%	1W	R909	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

**KV-G25M1/G25M11**  
RM-870

**F1**    **V1**

The components identified by shading  
and mark are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;TRANSFORMER&gt;</b>											
T1601	1-424-436-11	TRANSFORMER LINE FILTER		IC01	8-759-324-28	IC P83C654					
T1602	1-424-436-11	TRANSFORMER LINE FILTER		IC02	8-759-298-63	IC SAA5281ZP/E					
<b>*****</b>											
* A-1347-103-A V1 BOARD, COMPLETE (KV-G25M11)											
<b>&lt;CAPACITOR&gt;</b>											
C01	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V		JR02	1-216-295-00	CONDUCTOR, CHIP (2012)					
C02	1-124-907-11	ELECT 10MF 20% 50V		JR03	1-216-295-00	CONDUCTOR, CHIP (2012)					
C03	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V		JR04	1-216-295-00	CONDUCTOR, CHIP (2012)					
C04	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		JR07	1-216-295-00	CONDUCTOR, CHIP (2012)					
C05	1-124-907-11	ELECT 10MF 20% 50V		JR08	1-216-295-00	CONDUCTOR, CHIP (2012)					
C06	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V		<b>&lt;COIL&gt;</b>							
C07	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		L01	1-410-464-11	INDUCTOR 3.3UH					
C08	1-163-097-00	CERAMIC CHIP 15PF 5% 50		L03	1-410-464-11	INDUCTOR 3.3UH					
C09	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		L04	1-410-464-11	INDUCTOR 3.3UH					
C10	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		L05	1-410-464-11	INDUCTOR 3.3UH					
C11	1-164-346-11	CERAMIC CHIP 1MF 16V		L06	1-410-464-11	INDUCTOR 3.3UH					
C12	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		<b>&lt;TRANSISTOR&gt;</b>							
C13	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		Q01	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
C14	1-216-295-00	CONDUCTOR, CHIP (2012)		Q02	8-729-900-53	TRANSISTOR DTC114EK					
C15	1-124-482-11	ELECT 33MF 20% 35V		Q03	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
C16	1-126-963-11	ELECT 4.7MF 20% 50V		Q04	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
C17	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		Q05	8-729-216-22	TRANSISTOR 2SA1162-G					
C19	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		<b>&lt;RESISTOR&gt;</b>							
C22	1-124-907-11	ELECT 10MF 20% 50V		R01	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W					
C23	1-163-038-00	CERAMIC CHIP 0.1MF 25V		R02	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					
C25	1-124-907-11	ELECT 10MF 20% 50V		R03	1-216-085-00	METAL GLAZE 33K 5% 1/10W					
C26	1-124-119-00	ELECT 330MF 20% 16V		R04	1-216-025-00	METAL GLAZE 100 5% 1/10W					
C27	1-104-665-11	ELECT 100MF 20% 16V		R05	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					
C28	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R06	1-216-075-00	METAL GLAZE 12K 5% 1/10W					
C29	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R07	1-216-025-00	METAL GLAZE 100 5% 1/10W					
C30	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R08	1-216-025-00	METAL GLAZE 100 5% 1/10W					
C31	1-163-099-00	CERAMIC CHIP 18PF 5% 50V		R09	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					
<b>&lt;CONNECTOR&gt;</b>											
CN01	*1-770-748-11	CONNECTOR, BOARD TO BOARD 12P		R10	1-216-083-00	METAL GLAZE 27K 5% 1/10W					
<b>&lt;DIODE&gt;</b>											
D001	8-719-105-51	DIODE RD3.6M-B1		R11	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W					
D03	8-719-914-43	DIODE DAN202K		R12	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					
D04	8-719-105-91	DIODE RD5.6M-B2		R13	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W					
D05	8-719-914-44	DIODE DAP202K		R16	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
D06	8-719-914-43	DIODE DAN202K		R17	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
<b>&lt;FERRITE BEAD&gt;</b>											
FB01	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R18	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W					
				R19	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
				R20	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
				R21	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W					
				R22	1-216-041-00	METAL GLAZE 470 5% 1/10W					
				R24	1-216-025-00	METAL GLAZE 100 5% 1/10W					
				R25	1-216-025-00	METAL GLAZE 100 5% 1/10W					
				R26	1-216-049-00	METAL GLAZE 1K 5% 1/10W					

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

C F1

**V1**

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R27	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		REMOTE COMMANDER
R28	1-216-025-00	METAL GLAZE	100	5%	1/10W		*****
R29	1-216-025-00	METAL GLAZE	100	5%	1/10W		1-473-323-11 REMOTE COMMANDER (RM-870)
R30	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R31	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R32	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R33	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R36	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R37	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R38	1-260-085-11	CARBON	68	5%	1/2W		
R41	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W		
R43	1-216-295-00	CONDUCTOR, CHIP	(2012)				
R44	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		
R45	1-216-021-00	METAL GLAZE	68	5%	1/10W		
R46	1-216-021-00	METAL GLAZE	68	5%	1/10W		
R47	1-216-021-00	METAL GLAZE	68	5%	1/10W		

**<CRYSTAL>**

X01 1-579-266-31 CRYSTAL VIBRATOR

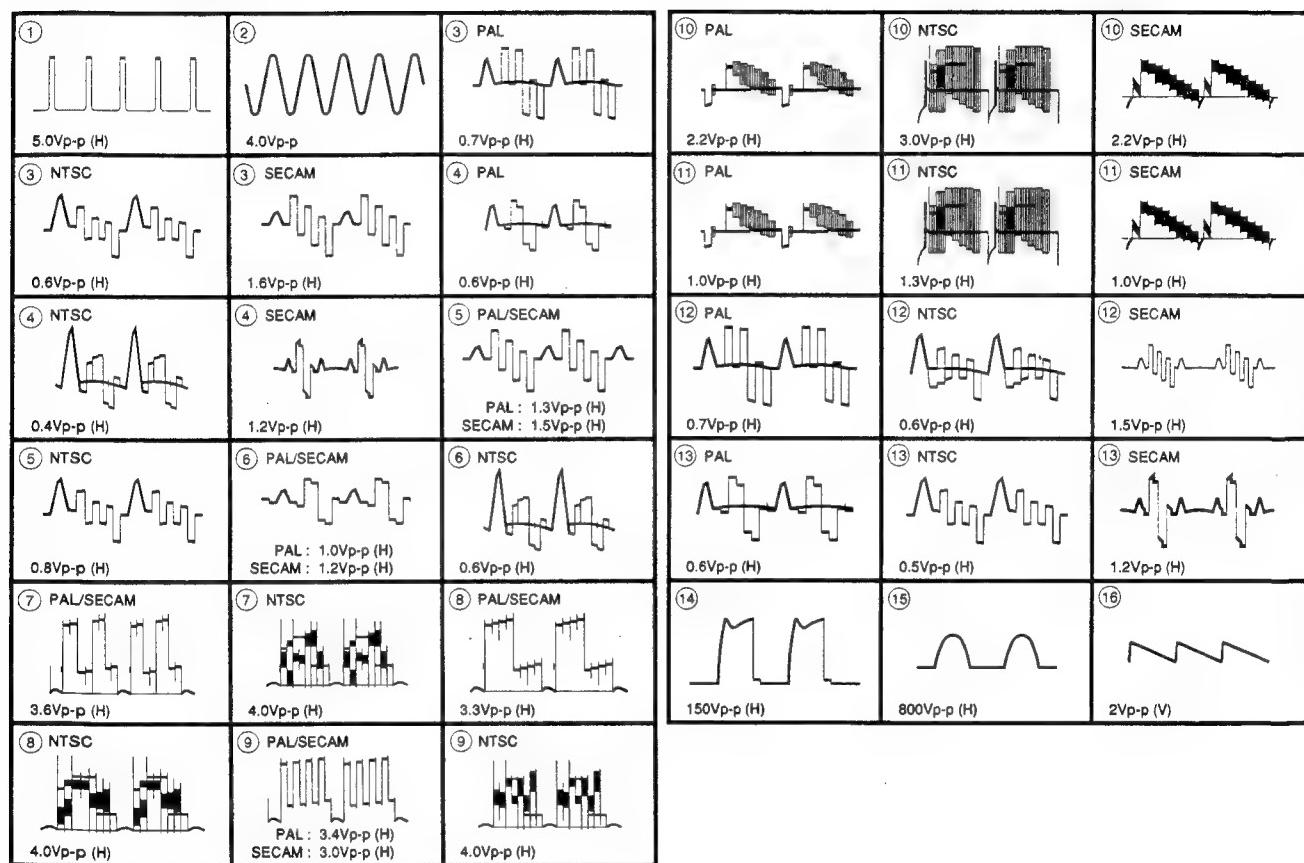
**MISCELLANEOUS**  
\*\*\*\*\*

1-544-453-21 SPEAKER (2CM)  
1-504-305-11 SPEAKER (5X12CM)  
 $\Delta$  3-733-224-05 PICTURE TUBE (KV-G25M1/11)  
 $\Delta$  3-471-404-11 CONNECTION WIRE (KV-G25M1)  
 $\Delta$  3-493-619-11 COIL, DEMAGNETIZATION  
 $\Delta$  3-574-002-22 CORD, POWER (WITH CONNECTOR)  
 2.5A/250V  
 (KV-G25M1(ME)/M1(RUSS))  
 $\Delta$  3-765-609-21 CORD, POWER (WITH CONNECTOR)  
 (KV-G25M1(HK))

**ACCESSORIES AND PACKING MATERIALS**  
\*\*\*\*\*

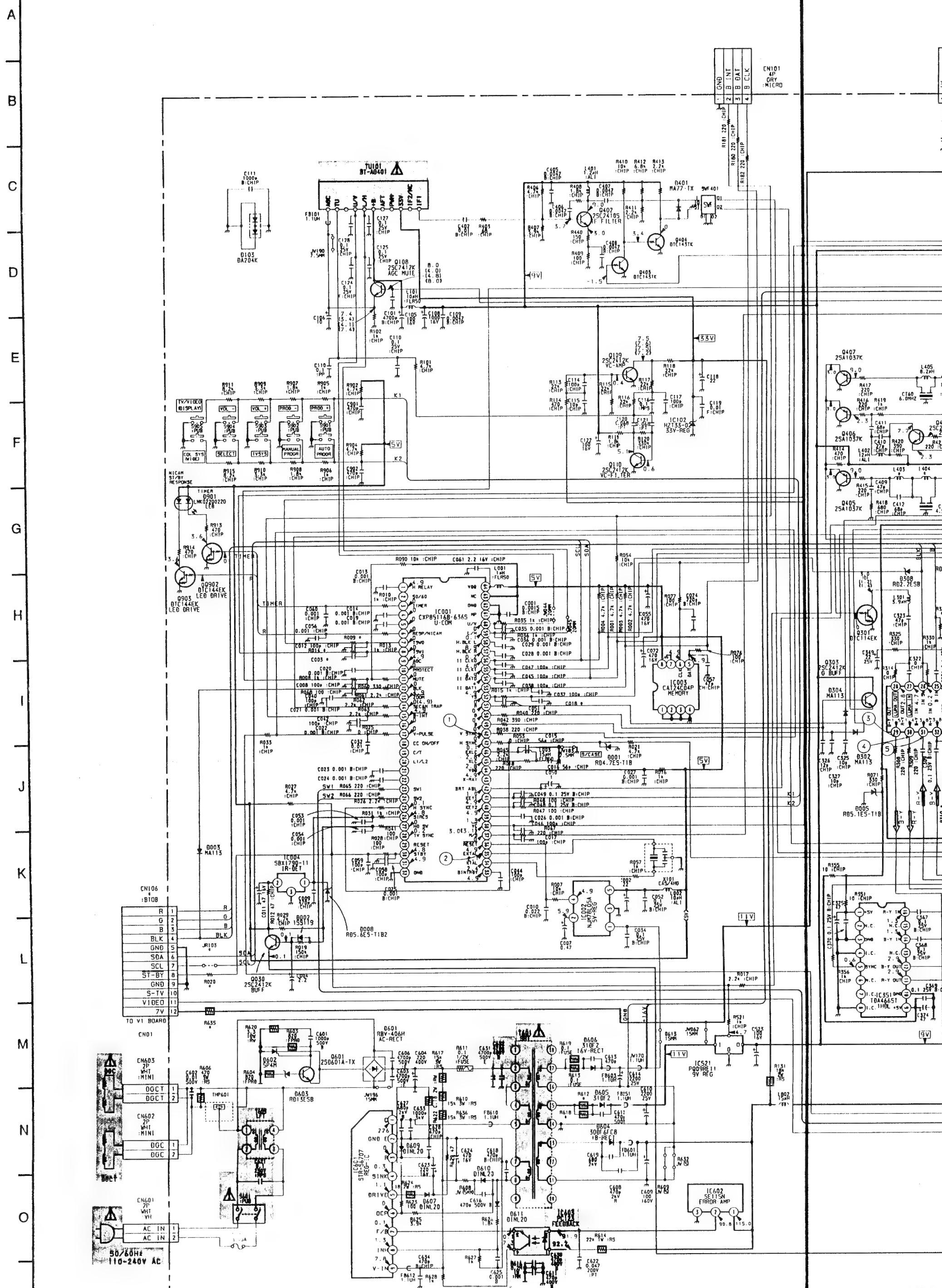
3-800-141-21 MANUAL, INSTRUCTION (KV-G25M1(ME))  
 3-800-141-41 MANUAL, INSTRUCTION (KV-G25M1(HK)/M11)  
 3-800-141-51 MANUAL, INSTRUCTION (KV-G25M1(RUSS))  
 \* 4-029-168-01 BAG, PROTECTION (KV-G25M11)  
 \* 4-039-372-01 BAG, PROTECTION (KV-G25M1)  
 3-701-910-00 SCREW, SPECIAL (DIA. 3.8X20)  
 4-392-003-11 BAND, HOLD  
 4-392-004-11 CLIP  
 $\Delta$  3-565-008-11 ADAPTER, COUPLING (KV-G25M1(HK)/M1(RUSS))  
 \* 4-047-806-01 CUSHION (UPPER) (ASSY) (KV-G25M1)  
 \* 4-047-807-01 CUSHION (LOWER) (ASSY) (KV-G25M1)  
 \* 4-047-808-01 INDIVIDUAL CARTON (KV-G25M1)

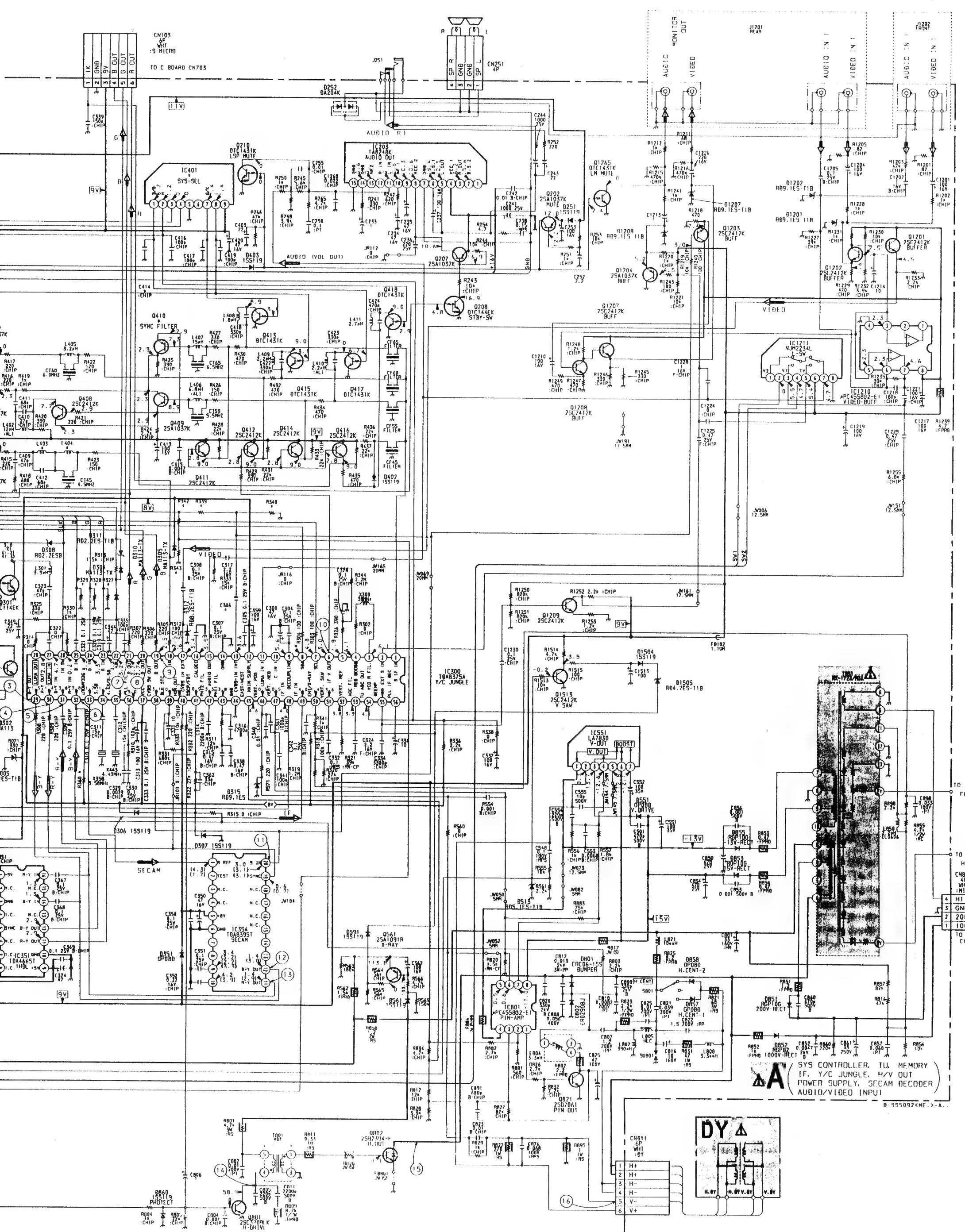
## A BOARD WAVEFORMS



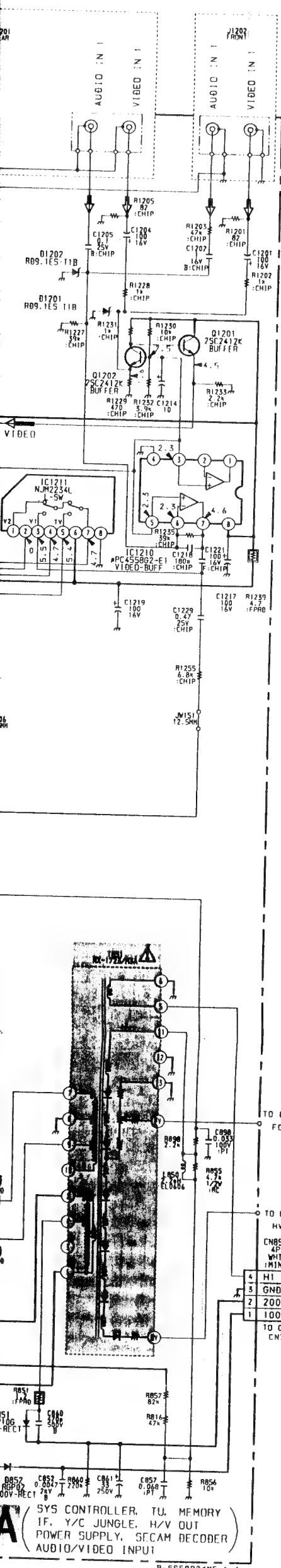
(1) Schematic Diagram of A Board

1 2 3 4 5 6 7 8 9 10 11



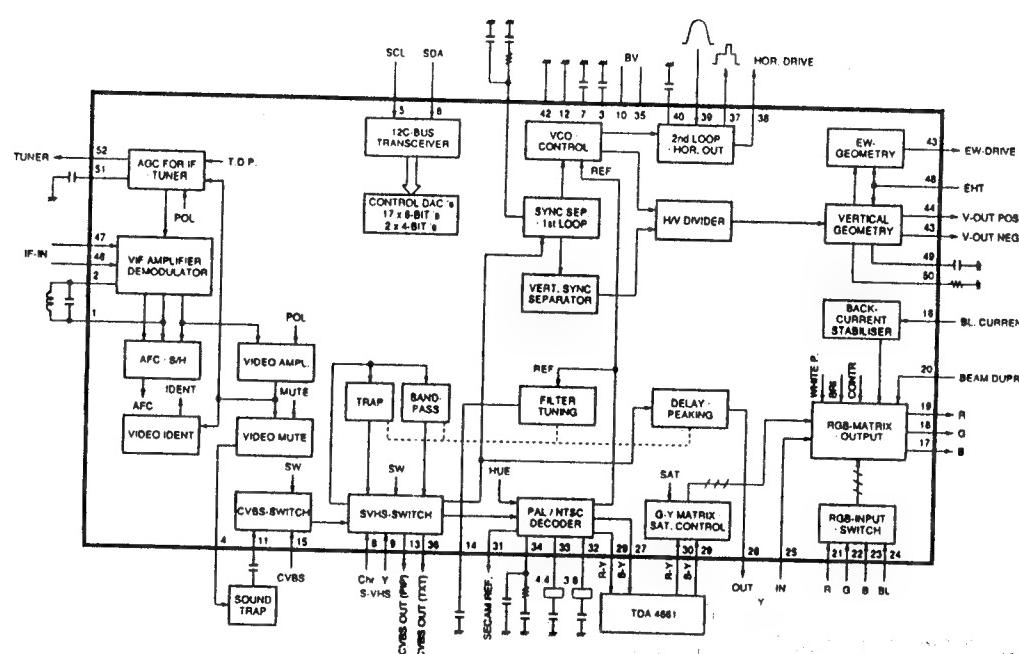


## A BOARD \* MARK LIST

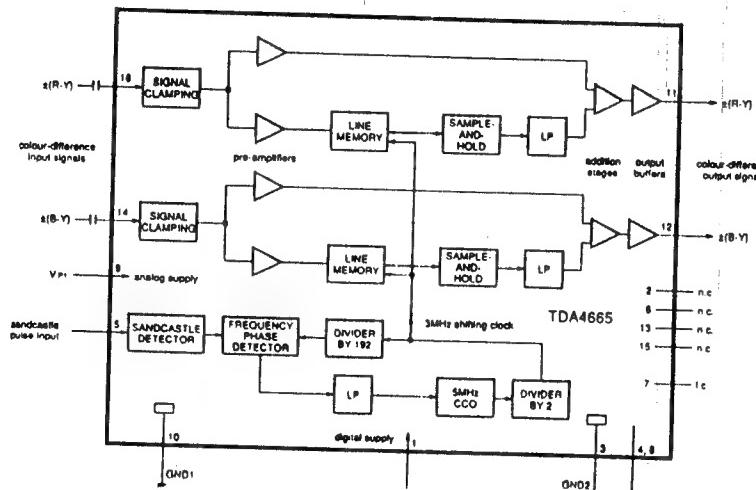


	KV-G25M1	KV-G25M11
C018	100 :CHIP	NOT USED
C051	NOT USED	100p :CHIP
C306	0.1 25V :CHIP	0 :CHIP
CN106	NOT USED	12P :B TO B
JR103	NOT USED	0 :CHIP
R020	NOT USED	100 :CHIP
R327	0 :CHIP	150 :CHIP
R328	0 :CHIP	150 :CHIP
R329	0 :CHIP	150 :CHIP
R339	300 :CHIP	NOT USED
R340	270 :CHIP	NOT USED
R342	NOT USED	300 :CHIP
R343	NOT USED	270 :CHIP
R612	0.47 :FPRD	0.1 :FUSE
R618	NOT USED	0.1 :FUSE
R635	NOT USED	22.2W :RS

A BOARD IC300 TDA8375A



A BOARD IC351 TDA4665T



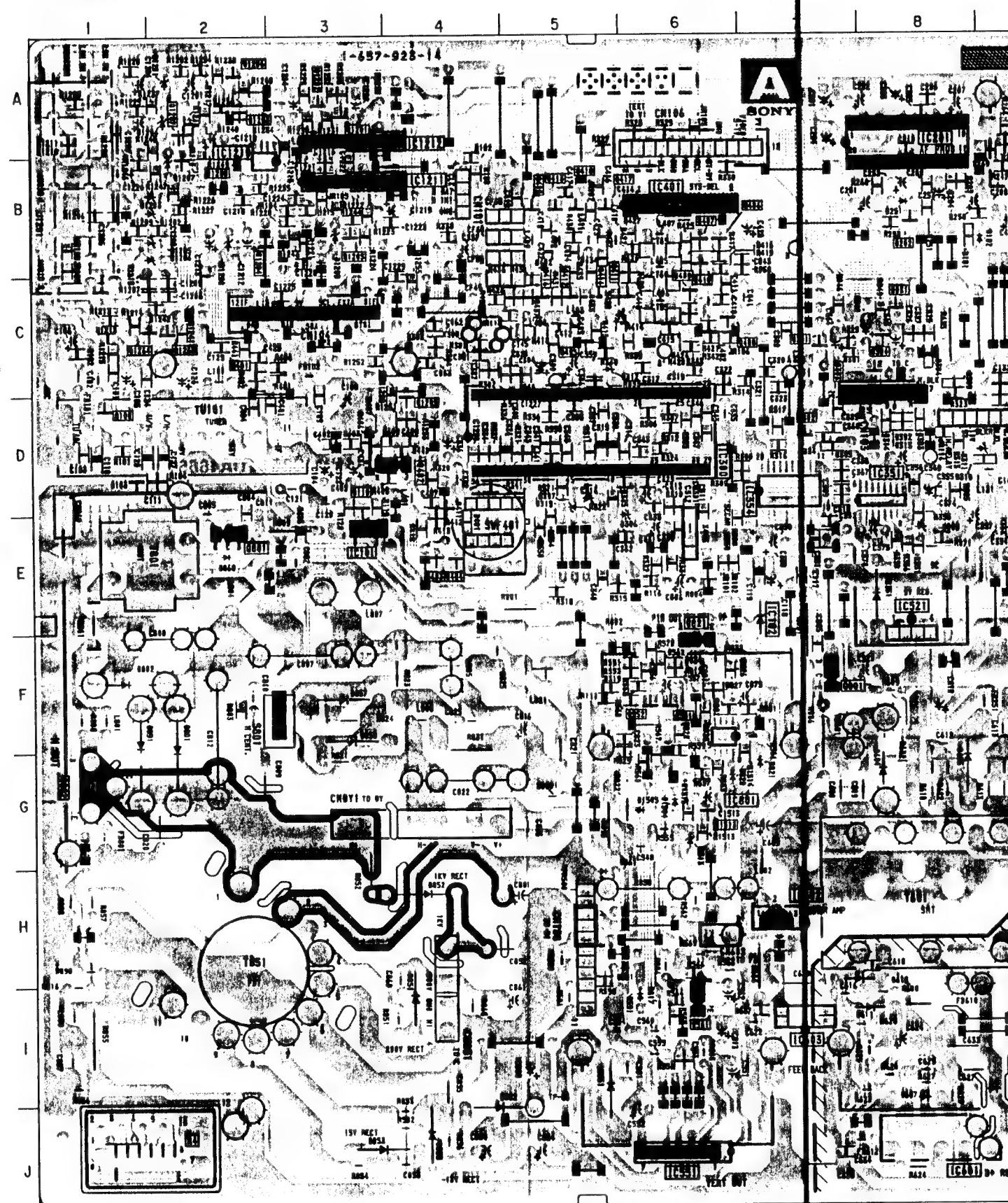
**A** [ SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE, H/V OUT ]  
[ POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT ]

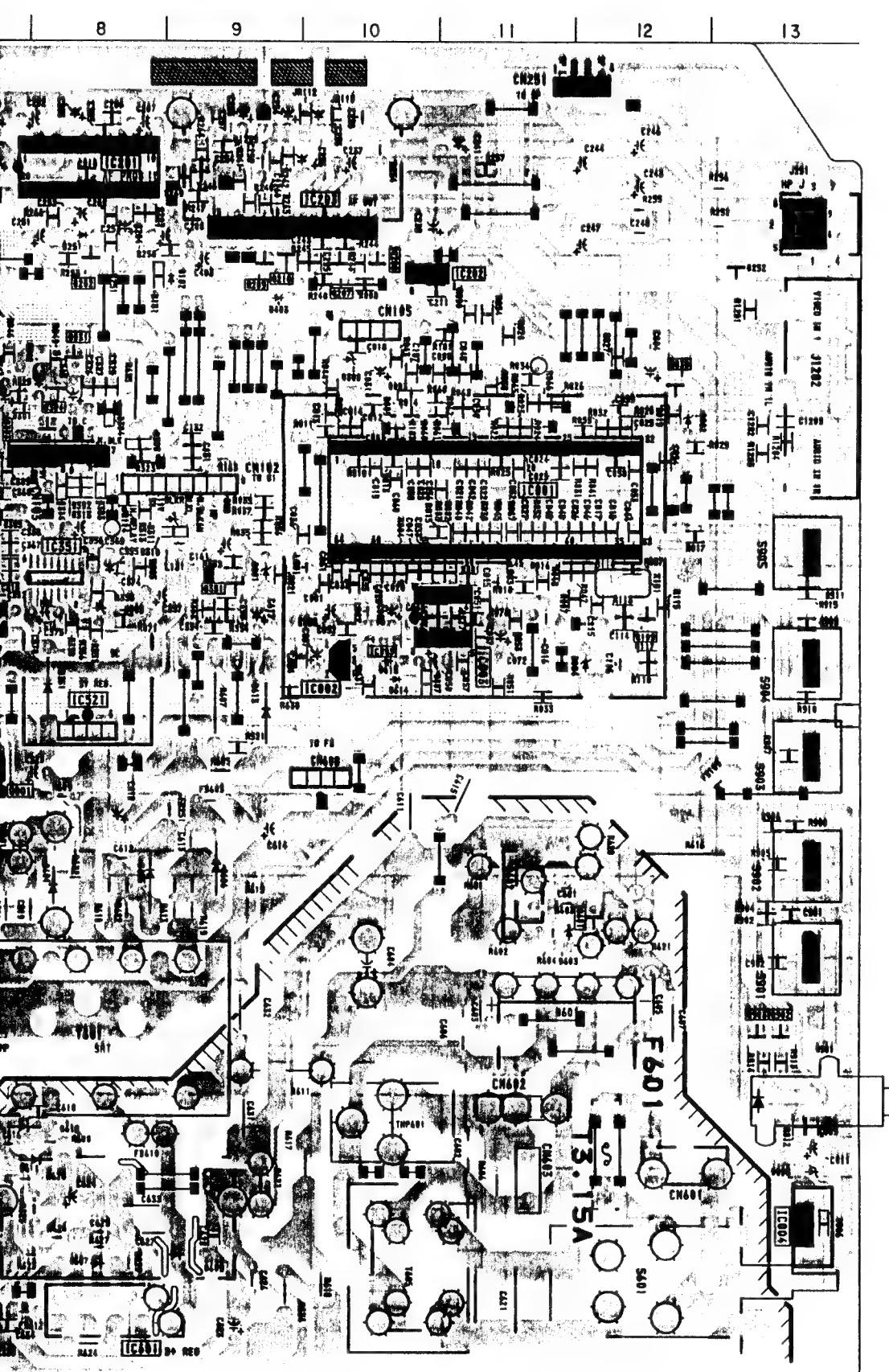
## **PRINTED WIRING BOARD**

A BOARD

IC		Q821	F-6	D615	E-10
IC001		Q902	H-13	D801	F-2
IC003		Q903	H-13	D802	F-1
IC001	D-11	Q1201	A-3	D820	G-6
IC002	E-10	Q1202	A-3	D821	G-7
IC003	E-11	Q1203	A-2	D851	H-4
IC004	I-13	Q1204	B-2	D852	H-4
IC005	E-10	Q1205	B-3	D853	J-3
IC101	E-3	Q1206	A-2	D855	J-4
IC102	E-7	Q1207	A-2	D857	F-3
IC201	A-8	Q1208	B-2	D858	F-3
IC202	B-10	Q1209	D-4	D860	E-2
IC203	B-10	Q1264	C-1	D891	F-1
IC300	D-6	Q1265	C-2	D901	H-13
IC351	D-8	Q1513	G-6	D1201	A-2
IC354	D-7	<b>DIODE</b>		D1202	B-2
IC401	B-6	D001	D-9	D1203	B-2
IC521	E-8	D002	C-12	D1204	A-2
IC551	J-6	D003	C-10	D1205	B-2
IC601	J-8	D004	E-12	D1206	B-2
IC602	H-7	D005	E-8	D1207	B-2
IC603	I-7	D006	I-13	D1208	B-2
IC801	G-6	D007	E-10	D1209	B-3
IC1210	A-2	D008	I-13	D1504	G-6
IC1211	B-3	D101	B-8	D1505	G-6
IC1212	A-3	D102	B-9		
<b>TRANSISTOR</b>		D103	D-1		
Q001	F-7	D251	B-8		
Q030	C-12	D252	B-13		
Q031	C-8	D301	C-7		
Q108	D-1	D302	D-8		
Q109	E-12	D303	D-8		
Q110	D-3	D304	C-8		
Q202	B-8	D305	D-7		
Q207	B-10	D306	E-6		
Q208	B-10	D307	D-5		
Q209	B-9	D308	C-10		
Q210	B-9	D309	C-8		
Q301	C-7	D310	D-9		
Q302	D-7	D311	D-9		
Q303	C-7	D312	C-5		
Q304	C-8	D313	D-8		
Q351	D-9	D314	D-8		
Q401	C-2	D315	D-5		
Q402	D-4	D351	E-8		
Q403	E-4	D401	E-4		
Q404	E-4	D402	B-5		
Q405	C-5	D403	B-9		
Q406	B-6	D513	G-6		
Q407	B-6	D551	I-5		
Q408	C-6	D561	H-5		
Q409	C-6	D562	F-6		
Q410	B-6	D581	H-5		
Q411	B-5	D582	I-4		
Q412	C-5	D591	I-6		
Q413	B-5	D601	H-11		
Q414	C-5	D602	G-11		
Q415	B-5	D603	G-11		
Q416	C-5	D604	G-8		
Q417	B-5	D605	G-8		
Q418	B-5	D606	G-9		
Q551	F-6	D607	I-8		
Q552	F-6	D609	I-9		
Q561	I-6	D610	H-7		
QE01	G-12	D611	I-7		
Q801	E-2	D613	E-9		
Q802	G-1	D614	E-10		

- A Board -





**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

**NOTE:**

The circuit indicated as left contains high voltage of over  
600 Vp-p. Care must be paid to prevent an electric shock  
in inspection or repairing.

## SECTION 9

### ELECTRICAL PARTS LIST

A

**NOTE:**

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- The components identified by  $\square$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

**RESISTORS**

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

- CAPACITORS**  
PF :  $\mu\mu F$

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1297-773-A	A BOARD, COMPLETE (KV-G25M11)	*****	C051	1-163-117-00	CERAMIC CHIP 100PF	5% 50V (KV-G25M11)
	* A-1297-768-A	A BOARD, COMPLETE (KV-G25M1)	*****	C052	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C053	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C055	1-126-941-11	ELECT 470MF	20% 16V
				C056	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C057	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
				C058	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C059	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C060	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C061	1-164-505-11	CERAMIC CHIP 2.2MF	16V
				C072	1-126-941-11	ELECT 470MF	20% 16V
				C074	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
				C101	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
				C105	1-104-665-11	ELECT 100MF	20% 16V
				C106	1-124-907-11	ELECT 10MF	20% 50V
				C108	1-126-942-61	ELECT 1000MF	20% 16V
				C109	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C110	1-136-165-00	FILM 0.1MF	5% 50V
				C111	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
				C114	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C115	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
				C116	1-136-165-00	FILM 0.1MF	5% 50V
				C117	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C118	1-126-965-11	ELECT 22MF	20% 50V
				C119	1-163-059-00	CERAMIC CHIP 0.01MF	50V
			(KV-G25M11)	C120	1-130-493-00	MYLAR 0.068MF	5% 50V
				C121	1-130-493-00	MYLAR 0.068MF	5% 50V
				C122	1-104-665-11	ELECT 100MF	20% 16V
				C124	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C125	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C127	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
				C128	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V
				C233	1-124-903-11	ELECT 1MF	20% 50V
				C234	1-126-967-11	ELECT 47MF	20% 16V
				C235	1-126-967-11	ELECT 47MF	20% 16V
				C236	1-126-968-11	ELECT 100MF	20% 35V
				C237	1-104-665-11	ELECT 100MF	20% 16V
				C238	1-136-167-00	FILM 0.15MF	5% 50V
				C241	1-126-942-61	ELECT 1000MF	20% 25V
				C242	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C243	1-128-551-11	ELECT 22MF	20% 25V
				C244	1-126-942-61	ELECT 1000MF	20% 25V
				C253	1-104-665-11	ELECT 100MF	20% 16V
				C255	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C258	1-130-495-00	MYLAR 0.1MF	5% 50V
				C300	1-126-967-11	ELECT 47MF	20% 16V
				C304	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C306	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
							(KV-G25M1)
				C306	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)	
				C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V

**KV-G25M1/G25M11**  
RM-870

**A**

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C424	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C501	1-102-228-00	CERAMIC 470PF	10% 500V
C311	1-163-231-11	CERAMIC CHIP 15PF	5%	50V	C523	1-104-665-11	ELECT 100MF	20% 16V
C312	1-163-231-11	CERAMIC CHIP 15PF	5%	50V	C548	1-106-220-00	MYLAR 0.1MF	10% 100V
C313	1-104-665-11	ELECT 100MF	20%	16V	C551	1-126-968-11	ELECT 100MF	20% 35V
C314	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	C552	1-126-968-11	ELECT 100MF	20% 35V
C315	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V	C553	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V
C316	1-102-125-00	CERAMIC 0.0047MF	10%	50V	C554	1-102-244-00	CERAMIC 220PF	10% 500V
C317	1-164-505-11	CERAMIC CHIP 2.2MF		16V	C555	1-101-804-00	CERAMIC 10PF	5% 500V
C319	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C562	1-104-665-11	ELECT 100MF	20% 16V
C320	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C601	1-162-318-11	CERAMIC 0.001MF	10% 500V
C321	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C602	1-102-050-00	CERAMIC 0.01MF	500V
C322	1-216-295-91	CONDUCTOR, CHIP			C603	1-161-830-00	CERAMIC 0.0047MF	500V
C323	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	C604	1-113-608-11	ELECT(SOLID) 470MF	20% 400V
C324	1-164-337-11	CERAMIC CHIP 2.2MF		16V	C606	1-161-830-00	CERAMIC 0.0047MF	500V
C325	1-163-093-00	CERAMIC CHIP 10PF	5%	50V	C608	1-104-332-11	CERAMIC 470PF	10% 2KV
C326	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	C609	1-124-347-00	ELECT 100MF	20% 160V
C327	1-163-093-00	CERAMIC CHIP 10PF	5%	50V	C610	1-126-943-11	ELECT 2200MF	20% 25V
C328	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C611	A 1-104-985-51	CERAMIC 470PF	10% 400V
C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10%	50V	C612	1-102-228-00	CERAMIC 470PF	10% 500V
C330	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C613	1-102-824-00	CERAMIC 470PF	5% 50V
C331	1-124-907-11	ELECT 10MF	20%	50V	C614	1-126-943-11	ELECT 2200MF	20% 25V
C332	1-136-165-00	FILM 0.1MF	5%	50V	C616	1-102-228-00	CERAMIC 470PF	10% 500V
C333	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C618	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C334	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	50V	C619	1-162-116-00	CERAMIC 680PF	10% 2KV
C335	1-102-973-00	CERAMIC 100PF	5%	50V	C621	A 1-104-703-51	FILM 0.1MF	20% 250V
C336	1-124-907-11	ELECT 10MF	20%	50V	C622	1-106-383-00	MYLAR 0.047MF	10% 200V
C337	1-104-665-11	ELECT 100MF	20%	16V	C623	1-124-120-11	ELECT 220MF	20% 16V
C338	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V	C624	1-126-942-61	ELECT 1000MF	20% 16V
C339	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	C625	1-102-074-00	CERAMIC 0.001MF	10% 50V
C340	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	C627	1-162-116-00	CERAMIC 680PF	10% 2KV
C341	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C630	A 1-104-985-51	CERAMIC 470PF	10% 400V
C342	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C631	1-161-830-00	CERAMIC 0.0047MF	500V
C344	1-126-963-11	ELECT 4.7MF	20%	50V	C632	A 1-104-985-51	CERAMIC 470PF	10% 400V
C349	1-128-551-11	ELECT 22MF	20%	25V	C633	1-161-754-00	CERAMIC 0.001MF	10% 3KV
C350	1-126-967-11	ELECT 47MF	20%	16V	C634	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C351	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C801	1-123-024-21	ELECT 33MF	160V
C352	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	C802	1-106-367-00	MYLAR 0.01MF	10% 200V
C358	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C804	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C359	1-104-665-11	ELECT 100MF	20%	16V	C805	1-102-244-00	CERAMIC 220PF	10% 500V
C361	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	C806	1-124-903-11	ELECT 1MF	20% 50V
C362	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	C807	1-136-540-11	FILM 0.82MF	5% 200V
C367	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C808	1-130-895-00	FILM 0.056MF	10% 400V
C368	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C809	1-162-115-00	CERAMIC 330PF	10% 2KV
C369	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C810	1-106-365-00	MYLAR 0.0082MF	200V
C370	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C811	1-162-318-11	CERAMIC 0.001MF	10% 500V
C374	1-124-910-11	ELECT 47MF	20%	50V	C812	1-136-617-11	FILM 0.019MF	3% 2KV
C375	1-124-910-11	ELECT 47MF	20%	50V	C816	1-123-947-00	ELECT 10MF	20% 160V
C402	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	C820	1-162-115-00	CERAMIC 330PF	10% 2KV
C403	1-126-965-11	ELECT 22MF	20%	50V	C821	1-106-391-12	MYLAR 0.1MF	10% 200V
C405	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C822	1-136-541-11	FILM 1.5MF	5% 200V
C406	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C823	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C407	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C825	1-106-367-00	MYLAR 0.01MF	10% 200V
C408	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C850	1-124-480-11	ELECT 470MF	20% 25V
C409	1-163-109-00	CERAMIC CHIP 47PF	5%	50V	C852	1-104-574-11	CERAMIC 0.0047MF	10% 2KV
C410	1-163-103-00	CERAMIC CHIP 27PF	5%	50V	C853	1-162-318-11	CERAMIC 0.001MF	10% 500V
C411	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	C854	1-124-480-11	ELECT 470MF	20% 25V
C412	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	C856	1-162-318-11	CERAMIC 0.001MF	10% 500V
C413	1-104-665-11	ELECT 100MF	20%	16V	C857	1-136-165-00	FILM 0.1MF	5% 50V
C414	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C860	1-102-228-00	CERAMIC 470PF	10% 500V
C415	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C861	1-107-654-11	ELECT 33MF	20% 250V
C416	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C875	1-124-910-11	ELECT 47MF	20% 50V
C417	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C876	1-108-702-11	MYLAR 0.068MF	10% 100V
C418	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	C891	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C419	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C898	1-108-702-11	MYLAR 0.068MF	10% 100V
C420	1-126-967-11	ELECT 47MF	20%	16V	C901	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C422	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	C902	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C423	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	C1201	1-104-665-11	ELECT 100MF	20% 16V
				C1202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

A

**KV-G25M1/G25M11**  
RM-870

**A**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;JACK&gt;</b>											
J251	1-770-785-11	JACK		Q801	8-729-140-96	TRANSISTOR 2SD774-34					
J1201	1-770-660-11	JACK BLOCK, PIN 4P		Q802	8-729-016-32	TRANSISTOR 2SC4927-01					
J1202	1-695-238-11	JACK BLOCK, PIN 2P		Q821	8-729-018-99	TRANSISTOR 2SD2394-F					
<b>&lt;CHIP CONDUCTOR&gt;</b>											
JR101	1-216-295-91	CONDUCTOR, CHIP		Q1202	8-729-422-27	TRANSISTOR 2SD601A-Q					
JR103	1-216-295-91	CONDUCTOR, CHIP (KV-G25M11)		Q1203	8-729-422-27	TRANSISTOR 2SD601A-Q					
JR112	1-216-295-91	CONDUCTOR, CHIP		Q1204	8-729-216-22	TRANSISTOR 2SA1162-G					
JR116	1-216-295-91	CONDUCTOR, CHIP		Q1207	8-729-422-27	TRANSISTOR 2SD601A-Q					
<b>&lt;COIL&gt;</b>											
L001	1-408-397-00	INDUCTOR 1UH		Q1209	8-729-422-27	TRANSISTOR 2SD601A-Q					
L002	1-410-509-11	INDUCTOR 10UH		Q1265	8-729-424-67	TRANSISTOR UN2216					
L003	1-408-411-00	INDUCTOR 15UH		Q1513	8-729-422-27	TRANSISTOR 2SD601A-Q					
L101	1-410-470-11	INDUCTOR 10UH		<b>&lt;RESISTOR&gt;</b>							
L301	1-408-404-00	INDUCTOR 3.9UH		R001	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
L401	1-410-498-11	INDUCTOR 1.2UH		R002	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
L402	1-410-510-11	INDUCTOR 12UH		R003	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
L403	1-410-510-11	INDUCTOR 12UH		R004	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
L404	1-410-508-11	INDUCTOR 8.2UH		R007	1-216-073-00	METAL GLAZE 10K	5%	1/10W			
L405	1-410-508-11	INDUCTOR 8.2UH		R008	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L406	1-410-507-11	INDUCTOR 6.8UH		R009	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L407	1-410-511-11	INDUCTOR 15UH		R010	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L408	1-410-500-11	INDUCTOR 1.8UH		R012	1-216-017-91	METAL GLAZE 47	5%	1/10W			
L409	1-410-501-11	INDUCTOR 2.2UH		R013	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L410	1-410-501-11	INDUCTOR 2.2UH		R014	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L411	1-410-502-11	INDUCTOR 2.7UH		R015	1-216-043-91	METAL GLAZE 560	5%	1/10W			
L802	1-412-527-11	INDUCTOR 15UH		R016	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
L804	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE		R017	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
L805	1-459-907-11	COIL, HORIZONTAL LINEARITY		R018	1-216-033-00	METAL GLAZE 220	5%	1/10W			
L807	1-459-390-00	COIL (WITH CORE)		R019	1-216-101-00	METAL GLAZE 150K	5%	1/10W			
L808	1-412-553-11	INDUCTOR 3.3mH		R020	1-216-025-91	METAL GLAZE 100	5%	1/10W			
L821	1-459-111-00	COIL, DRAM CORE (CDI)		R021	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
L850	1-408-947-00	INDUCTOR 2.2mH		R025	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
<b>&lt;TRANSISTOR&gt;</b>											
Q030	8-729-422-27	TRANSISTOR 2SD601A-Q		R027	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
Q108	8-729-422-27	TRANSISTOR 2SD601A-Q		R028	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q109	8-729-422-27	TRANSISTOR 2SD601A-Q		R029	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
Q110	8-729-422-27	TRANSISTOR 2SD601A-Q		R031	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
Q202	8-729-216-22	TRANSISTOR 2SA1162-G		R033	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
R035	1-216-049-91	METAL GLAZE 1K	5%	1/10W							
Q207	8-729-216-22	TRANSISTOR 2SA1162-G		R036	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
Q208	8-729-421-19	TRANSISTOR UN2213		R038	1-216-033-00	METAL GLAZE 220	5%	1/10W			
Q210	8-729-424-67	TRANSISTOR UN2216		R040	1-216-033-00	METAL GLAZE 220	5%	1/10W			
Q301	8-729-421-22	TRANSISTOR UN2211		R041	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R042	1-216-039-00	METAL GLAZE 390	5%	1/10W			
Q402	8-729-922-66	TRANSISTOR 2SC2410SN		R045	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
Q403	8-729-424-67	TRANSISTOR UN2216		R047	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q404	8-729-424-67	TRANSISTOR UN2216		R048	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q405	8-729-216-22	TRANSISTOR 2SA1162-G		R053	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
Q406	8-729-216-22	TRANSISTOR 2SA1162-G		R054	1-216-073-00	METAL GLAZE 10K	5%	1/10W			
Q407	8-729-216-22	TRANSISTOR 2SA1162-G		R057	1-216-049-91	METAL GLAZE 1K	5%	1/10W			
Q408	8-729-422-27	TRANSISTOR 2SD601A-Q		R060	1-216-037-00	METAL GLAZE 330	5%	1/10W			
Q409	8-729-216-22	TRANSISTOR 2SA1162-G		R061	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
Q410	8-729-216-22	TRANSISTOR 2SA1162-G		R062	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
Q411	8-729-422-27	TRANSISTOR 2SD601A-Q		R063	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W			
Q412	8-729-422-27	TRANSISTOR 2SD601A-Q		R065	1-216-033-00	METAL GLAZE 220	5%	1/10W			
Q413	8-729-424-67	TRANSISTOR UN2216		R066	1-216-033-00	METAL GLAZE 220	5%	1/10W			
Q414	8-729-422-27	TRANSISTOR 2SD601A-Q		R067	1-216-033-00	METAL GLAZE 220	5%	1/10W			
Q415	8-729-424-67	TRANSISTOR UN2216		R068	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q416	8-729-422-27	TRANSISTOR 2SD601A-Q		R071	1-216-037-00	METAL GLAZE 330	5%	1/10W			
Q417	8-729-424-67	TRANSISTOR UN2216		R076	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q418	8-729-424-67	TRANSISTOR UN2216		R077	1-216-025-91	METAL GLAZE 100	5%	1/10W			
Q561	8-729-200-17	TRANSISTOR 2SA1091-O		R090	1-216-073-00	METAL GLAZE 10K	5%	1/10W			
Q601	8-729-422-27	TRANSISTOR 2SD601A-Q		R101	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W			
				R102	1-216-049-91	METAL GLAZE 1K	5%	1/10W			

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
R113	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R344	1-216-129-00	METAL GLAZE 2.2M	5% 1/10W	
R114	1-216-041-00	METAL GLAZE 470	5% 1/10W	R351	1-216-001-00	METAL GLAZE 10	5% 1/10W	
R115	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R355	1-216-001-00	METAL GLAZE 10	5% 1/10W	
R116	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R356	1-216-049-91	METAL GLAZE 1K	5% 1/10W	
R117	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R360	1-208-291-11	METAL GLAZE 4.7M	5% 1/10W	
R118	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R403	1-216-021-00	METAL GLAZE 68	5% 1/10W	
R119	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R406	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	
R120	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R407	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	
R131	1-216-464-11	METAL OXIDE 18K	5% 2W F	R408	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	
R180	1-216-033-00	METAL GLAZE 220	5% 1/10W	R409	1-216-025-91	METAL GLAZE 100	5% 1/10W	
R181	1-216-033-00	METAL GLAZE 220	5% 1/10W	R410	1-216-073-00	METAL GLAZE 10K	5% 1/10W	
R182	1-216-033-00	METAL GLAZE 220	5% 1/10W	R411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	
R241	1-216-037-00	METAL GLAZE 330	5% 1/10W	R412	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	
R242	1-216-044-00	METAL GLAZE 620	5% 1/10W	R413	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	
R243	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R414	1-216-041-00	METAL GLAZE 470	5% 1/10W	
R244	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R415	1-216-033-00	METAL GLAZE 220	5% 1/10W	
R245	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R416	1-216-033-00	METAL GLAZE 220	5% 1/10W	
R248	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R417	1-216-033-00	METAL GLAZE 220	5% 1/10W	
R250	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R418	1-216-045-00	METAL GLAZE 680	5% 1/10W	
R251	1-216-295-91	CONDUCTOR, CHIP		R419	1-216-049-91	METAL GLAZE 1K	5% 1/10W	
R252	1-249-411-11	CARBON 330	5% 1/4W	R420	1-216-039-00	METAL GLAZE 390	5% 1/10W	
R253	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R421	1-216-033-00	METAL GLAZE 220	5% 1/10W	
R254	1-249-389-11	CARBON 4.7	5% 1/4W	R422	1-216-027-00	METAL GLAZE 120	5% 1/10W	
R265	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R423	1-216-029-00	METAL GLAZE 150	5% 1/10W	
R266	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R424	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	
R302	1-216-295-91	CONDUCTOR, CHIP		R425	1-216-039-00	METAL GLAZE 390	5% 1/10W	
R303	1-216-025-91	METAL GLAZE 100	5% 1/10W	R426	1-216-029-00	METAL GLAZE 150	5% 1/10W	
R304	1-216-025-91	METAL GLAZE 100	5% 1/10W	R427	1-216-037-00	METAL GLAZE 330	5% 1/10W	
R305	1-216-025-91	METAL GLAZE 100	5% 1/10W	R428	1-216-081-00	METAL GLAZE 22K	5% 1/10W	
R306	1-216-025-91	METAL GLAZE 100	5% 1/10W	R429	1-216-039-00	METAL GLAZE 390	5% 1/10W	
R307	1-216-025-91	METAL GLAZE 100	5% 1/10W	R430	1-216-041-00	METAL GLAZE 470	5% 1/10W	
R308	1-216-033-00	METAL GLAZE 220	5% 1/10W	R431	1-216-081-00	METAL GLAZE 22K	5% 1/10W	
R309	1-216-033-00	METAL GLAZE 220	5% 1/10W	R432	1-216-041-00	METAL GLAZE 470	5% 1/10W	
R310	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R433	1-216-081-00	METAL GLAZE 22K	5% 1/10W	
R311	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R434	1-216-041-00	METAL GLAZE 470	5% 1/10W	
R312	1-216-025-91	METAL GLAZE 100	5% 1/10W	R435	1-216-041-00	METAL GLAZE 470	5% 1/10W	
R313	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R436	1-216-081-00	METAL GLAZE 22K	5% 1/10W	
R314	1-216-295-91	CONDUCTOR, CHIP		R437	1-216-081-00	METAL GLAZE 22K	5% 1/10W	
R315	1-216-295-91	CONDUCTOR, CHIP		R440	1-216-029-00	METAL GLAZE 150	5% 1/10W	
R318	1-216-099-00	METAL GLAZE 120K	5% 1/10W	R521	1-216-049-91	METAL GLAZE 1K	5% 1/10W	
R319	1-216-123-11	METAL GLAZE 1.2M	5% 1/10W	R552	1-216-113-00	METAL GLAZE 470K	5% 1/10W	
R320	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R553	1-216-089-91	METAL GLAZE 47K	5% 1/10W	
R321	1-216-689-11	METAL CHIP 39K	0.50% 1/10W	R554	1-163-009-11	CERAMIC CHIP 0.001MF	10% 30V	
R322	1-216-083-00	METAL GLAZE 27K	5% 1/10W	R555	1-249-429-11	CARBON 10K	5% 1/4W	
R325	1-216-037-00	METAL GLAZE 330	5% 1/10W	R556	1-216-049-91	METAL GLAZE 1K	5% 1/10W	
R326	1-216-039-00	METAL GLAZE 390	5% 1/10W	R557	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	
R327	1-216-029-00	METAL GLAZE 150	5% 1/10W	(KV-G25M11)	R560	1-216-295-91	CONDUCTOR, CHIP	
R327	1-216-295-91	CONDUCTOR, CHIP (KV-G25M1)		R561	1-249-421-11	CARBON 2.2K	5% 1/4W	
R328	1-216-029-00	METAL GLAZE 150	5% 1/10W	R562	1-249-420-11	CARBON 1.8K	5% 1/4W F	
R328	1-216-295-91	CONDUCTOR, CHIP (KV-G25M1)		R563	1-247-885-00	CARBON 180K	5% 1/4W	
R329	1-216-029-00	METAL GLAZE 150	5% 1/10W	R564	1-216-091-00	METAL GLAZE 56K	5% 1/10W	
R329	1-216-295-91	CONDUCTOR, CHIP (KV-G25M1)		R565	1-216-091-00	METAL GLAZE 56K	5% 1/10W	
R330	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R566	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	
R331	1-216-115-00	METAL GLAZE 560K	5% 1/10W	R569	1-247-883-00	CARBON 150K	5% 1/4W	
R332	1-216-033-00	METAL GLAZE 220	5% 1/10W	R570	1-216-295-91	CONDUCTOR, CHIP		
R333	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R571	1-216-033-00	METAL GLAZE 220	5% 1/10W	
R335	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R603	1-249-416-11	CARBON 820	5% 1/4W F	
R336	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R604	1-249-416-11	CARBON 820	5% 1/4W F	
R338	1-216-295-91	CONDUCTOR, CHIP		R606	1-215-915-11	METAL OXIDE 470	5% 3W F	
R339	1-216-036-00	METAL GLAZE 300	5% 1/10W	R610	1-215-924-00	METAL OXIDE 15K	5% 3W F	
		(KV-G25M11)		R611	1-202-933-61	FUSIBLE 0.1	10% 1/2W F	
R340	1-216-035-00	METAL GLAZE 270	5% 1/10W	(KV-G25M1)	R612	1-219-134-11	FUSIBLE 0.1	10% 1/4W (KV-G25M11)
R341	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R612	1-249-377-11	CARBON 0.47	5% 1/4W F (KV-G25M1)	
R342	1-216-036-00	METAL GLAZE 300	5% 1/10W	R613	1-219-134-11	FUSIBLE 0.1	10% 1/4W F	
R343	1-216-035-00	METAL GLAZE 270	5% 1/10W	R614	1-215-877-11	METAL OXIDE 22K	5% 1W F	
		(KV-G25M11)		R615	1-249-389-11	CARBON 4.7	5% 1/4W F	

**KV-G25M1/G25M11**  
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R616	▲ 1-218-265-91	METAL OXIDE	8.2M	5%	1W		
R617	1-215-924-00	METAL OXIDE	15K	5%	3W	F	
R618	1-219-134-11	FUSIBLE	0.1	10%	1/4W		
				(KV-G25M11)			
R619	1-219-134-11	FUSIBLE	0.1	10%	1/4W		
R620	1-202-962-11	WIREWOUND	3.3	5%	10W		
R622	1-217-191-21	WIREWOUND	0.18	10%	2W	F	
R623	1-247-807-31	CARBON	100	5%	1/4W		
R624	1-215-881-11	METAL OXIDE	15	5%	2W	F	
R625	1-249-424-11	CARBON	3.9K	5%	1/4W		
R626	1-249-420-11	CARBON	1.8K	5%	1/4W		
R627	1-249-417-11	CARBON	1K	5%	1/4W		
R628	1-249-417-11	CARBON	1K	5%	1/4W		
R629	1-249-401-11	CARBON	47	5%	1/4W		
R632	1-249-381-11	CARBON	1	5%	1/4W		
R635	1-215-882-00	METAL OXIDE	22	5%	2W	F	
				(KV-G25M11)			
R636	1-215-924-00	METAL OXIDE	15K	5%	3W	F	
R801	1-215-920-11	METAL OXIDE	3.3K	5%	3W	F	
R802	1-249-387-11	CARBON	3.3	5%	1/4W	F	
R803	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R804	1-216-049-91	METAL GLAZE	1K	5%	1/10W		
R805	1-216-081-00	METAL GLAZE	22K	5%	1/10W		
R809	1-247-756-11	CARBON	2.2K	5%	1/2W	F	
R811	1-216-346-00	METAL OXIDE	0.56	5%	1W	F	
R812	1-216-075-00	METAL GLAZE	12K	5%	1/10W		
R816	1-249-437-11	CARBON	47K	5%	1/4W		
R820	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R821	1-215-910-00	METAL OXIDE	68	5%	3W	F	
R822	1-216-429-00	METAL OXIDE	270	5%	1W	F	
R823	1-247-756-11	CARBON	2.2K	5%	1/2W	F	
R825	1-249-392-11	CARBON	8.2	5%	1/4W	F	
R826	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W		
R827	1-216-097-91	METAL GLAZE	100K	5%	1/10W		
R828	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W		
R829	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R831	1-215-861-00	METAL OXIDE	47	5%	1W	F	
R832	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R834	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R851	1-249-382-11	CARBON	1.2	5%	1/4W	F	
R852	1-249-417-11	CARBON	1K	5%	1/4W	F	
R853	1-249-377-11	CARBON	0.47	5%	1/4W	F	
R854	1-249-377-11	CARBON	0.47	5%	1/4W	F	
R855	1-202-818-00	SOLID	1K	20%	1/2W		
R856	1-249-431-11	CARBON	15K	5%	1/4W		
R857	1-249-438-11	CARBON	56K	5%	1/4W		
R858	1-216-370-11	METAL OXIDE	1.2	5%	2W	F	
R860	1-247-887-00	CARBON	220K	5%	1/4W		
R881	1-216-043-91	METAL GLAZE	560	5%	1/10W		
R882	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W		
R883	1-216-121-91	METAL GLAZE	1M	5%	1/10W		
R895	1-216-348-00	METAL OXIDE	0.82	5%	1W	F	
R898	1-249-421-11	CARBON	2.2K	5%	1/4W		
R902	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R904	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R905	1-216-049-91	METAL GLAZE	1K	5%	1/10W		
R906	1-216-049-91	METAL GLAZE	1K	5%	1/10W		
R907	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W		
R908	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W		
R909	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		
R910	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		
R911	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R913	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R914	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R915	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		
R1201	1-216-023-00	METAL GLAZE	82	5%	1/10W		
R1202	1-216-049-91	METAL GLAZE	1K	5%	1/10W		
R1203	1-216-089-91	METAL GLAZE	47K	5%	1/10W		
R1205	1-216-023-00	METAL GLAZE	82	5%	1/10W		

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ▲ are critical for safety.  
Replace only with part number specified.

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<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
<b>&lt;CRYSTAL&gt;</b>			
X101	1-577-358-21	VIBRATOR, CERAMIC	
X300	1-411-752-11	COIL	
X358	1-567-505-11	OSCILLATOR, CRYSTAL	
X443	1-567-504-11	OSCILLATOR, CRYSTAL	